ILBANK

TÜRKİYE EARTHQUAKE, FLOODS AND WILDFIRES EMERGENCY RECONSTRUCTION PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

MAY 2023

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ABBREVIATIONS

ABPRS	Adress Based Population Registration System
AFD	Agence Française de Développement
CHSS	Community Health Safety Standard
DRM	Disaster Risk Management
E&S	Environmental and Social
EIA	Environmental Impact Assessment
EIB	European Investment Bank
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESHS	Environmental, Social, Health and Safety
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESRC	Environmental and Social Risk Classification
ESS	Environmental and Social Standard
EU	European Union
FRIT	Facility for Refugees in Türkiye
PDO	Project Development Objective
GHG	Greenhouse Gases
GM	Grievance Mechanism
GoT	Government of Türkiye
IBA	Important Bird Area
IBRD	International Bank for Reconstruction and Development
IFI	International Finance Institution
ILO	International Labour Organization
IUCN	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
KBA	Key Biodiversity Areas
LMP	Labour Management Procedure
M&E	Monitoring and Evaluation
MoEUCC	Ministry of Environment Urbanization and Climate Change
MSP	Municipal Services Project
MSIP	Municipal Services Improvement Project
MUSKI	Muğla Water and Wastewater Administration
NGO/CSO	Non-Governmental Organization/Civil Society Organization
NRW	Non-Revenue Water
NWMP&AP	National Waste Management Plan and Action Plan
OHS	Occupational Health and Safety
p.e.	Population equivalent
PIF	Project Information File
PIU	Project Implementation Unit

PMU	Project Management Unit
RF	Resettlement Framework
RP	Resettlement Plan
SCADA	Supervisory Control and Data Acquisition
SCP	Sustainable Cities Project
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
SWMP	Solid Waste Management Plan
TurkStat	Turkish Statistical Institution
UN	United Nation
WB	World Bank
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

Floods, wildfires, storms, and landslides are frequent events in Türkiye and result in localized losses. Observed and anticipated climate change impacts, such as more intense precipitation, extreme heat and rising sea level, are expected to lead to increasing risks to natural disasters, including more frequent and intense flooding in low-lying areas of river deltas and coastal cities and other extreme weather events, such as storms, hail, and tornadoes. For coastal cities, flooding will not only be an increasing threat to human life, but economic losses are projected to increase as well. Long term sustainable growth in Türkiye requires a reduction in the physical, social, and economic shocks associated with geophysical and climate change-induced disasters.

The World Bank has been a leading partner in the thematic areas of Disaster Risk Management (DRM) and urban development in Türkiye for many years. **Türkiye Earthquake, Floods and Wildfires Emergency Reconstruction (TEFWER) Project** has been developed by the participation of İller Bankası A.Ş (ILBANK) and World Bank (WB) to support municipalities to undertake urgent repairs, structural strengthening, and if needed demolition/reconstruction, rehabilitation or new construction of damaged municipal owned infrastructure and to put in place measures aimed at increasing disaster preparedness and climate adaptation. The Project will also support rapid response to future disasters through a funded Contingent Emergency Response Component (CERC).

TEFWER Project responds the immediate and most critical reconstruction and rehabilitation needs from recent wildfires, floods and earthquakes, while also proactively tackling urgent measures required to build resilience to disaster and climate risks which are growing in frequency and intensity.

ILBANK as an incorporated, non-deposit-taking development and investment bank provides financial resources to municipalities and will act as financial intermediary (FI) in this Project. ILBANK completed a grant financed activity with the World Bank named "Support to ILBANK on Climate and Disaster Risk Management Capacity Building". This activity provided ILBANK with a clear and practical framework to identify both relevant climate and disaster risks to municipal projects and cost-effective measures that could increase the resilience of planned infrastructure investments – with a focus on water and transport infrastructure.

The activities within this project will be in compliance to Republic of Türkiye's relevant legislations as well as the WB's Environmental and Social Standards (ESSs). **ILBANK will ensure that the works under TEFWER Project will be conducted in compliance with relevant WB policies and procedures and legislative requirements of Republic of Türkiye.** Thus, ILBANK is strengthening its Environmental and Social Management System (ESMS) in accordance with the WB's ESS9 requirements.

ILBANK has prepared and disclosed Environmental and Social Commitment Plan (ESCP) and Stakeholder Engagement Plan (SEP) in February 2022 for TEFWER Project. As per the ESCP of the Project, ILBANK is also committed to prepare, disclose, consult and redisclose the Environmental and Social Framework (ESMF), Resettlement Framework (RF) and Labour Management Procedures (LMP) of the Project no later than the effectiveness date of the Project. These instruments will be subject to review and approval of the WB team before its disclosure.

The most recent major earthquake (magnitude 6.9) in Türkiye occurred on October 30, 2020 in the Aegean Sea and severely impacted the region of Izmir, which is the third largest urban area and an economic hub in Türkiye. The City of Izmir suffered disproportionately from this event, with 17 multi-story buildings collapsed and 116 fatalities. Thousands of buildings suffered light to moderate structural damage. Moreover, moderate to heavy damage for 36 public buildings and 32 schools was reported. The earthquake was followed by a tsunami which damaged coastal areas and towns of the province. Between December 2020 and February 2021, the city of Izmir was heavily affected by intense rainfall and flash flooding on three occasions. Flash, river, and coastal flooding in December 2020, resulted in two fatalities and damage to houses and workplaces. In February 2021, 150% of the average monthly rainfall fell in 10 hours, triggering flash floods across the city as the storm water systems failed to absorb rainfall run off. In addition to the events in Izmir, Türkiye was hit by a series of natural disasters in 2021. In August 2021, some wildfires raged through mainly Türkiye's southern coast. Rising temperatures and strong winds subsequently caused numerous forest fires in southern and western Türkiye. In August 2021, more than 300 forest fires broke out in 53 provinces across Türkiye, which negatively affected forests and residential areas. Shortly after the fires, a series of violent summer storms, accompanied by heavy rains, lightning, severe floods and landslides hit Türkiye's Black Sea region in September 2021. With hundreds of houses flooded, thousands of residents were forced to leave their homes and find temporary accommodation in schools and other public buildings. The floods, triggered by torrential rain, caused some buildings to collapse, smashed bridges, clogged streets with wrecked cars and cut power supplies. Many livestock were killed while fields were ruined in these largely agricultural provinces. Hundreds of buildings were destroyed by mudslides and cave-ins and water mains badly damaged. Heavy rains are very common in Türkiye's Black Sea region, where floods are an annual occurrence.

The municipalities that have been affected by wildfires, floods and earthquakes in 2020-2021 and requested for urgent needs of assistance are Adana, Antalya, Balıkesir, Bursa, Düzce, Elazığ, Hatay, İzmir, Kastamonu, Konya, Malatya, Muğla, Rize, Samsun, Sinop, Tokat, Trabzon and Zonguldak.

As the sub-projects have not been fully specified, their potential social and environmental risks and impacts cannot be fully assessed at this stage. This Environmental and Social Management Framework (ESMF) sets out the principles, rules, guidelines and procedures for screening, assessing, and managing the potential social and environmental impacts of the sub-projects which will be financed through TEFWER Project. It contains measures and plans to avoid, and where avoidance is not possible, to reduce, mitigate and/or offset adverse risks and impacts. The ESMF specifies the most likely applicable social and environmental policies and requirements and how those requirements will be met through procedures for the screening, assessment, approval, mitigation, monitoring and reporting of social and environmental risks and impacts associated with the activities to be supported. The overall Environmental and Social Risk Classification (ESRC) is rated as Substantial, and subprojects that are screened as high-risk during implementation will not be eligible for financing.

Project Development Objective

The Project Development Objective is to support green and resilient disaster reconstruction in municipalities affected by earthquake, floods or wildfires, to strengthen municipal capacity for disaster resilience, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

Project Components

The project includes four main components:

- **Component 1 - Green and Resilient Rehabilitation, Reconstruction and Construction of Municipal Infrastructure and Actions to Strengthen Municipal Resilience (EUR 412 million)**
  - Subcomponent 1.a - Reduced urban flooding through investment in resilient and climate-change sensitive stormwater systems.
  - Subcomponent 1.b - Increase emergency response capacity within municipalities for flood, wildfire and other disasters.
  - Subcomponent 1.c - Restored and improved resilience of water and wastewater services.
  - Subcomponent 1.d - Resilient transport and evacuation routes.
  - Subcomponent 1.e - Municipality Capacity Building Activities.
- **Component 2 – Technical Assistance to Support Green, Resilient and Inclusive Cities (EUR 5 million)**
  - Subcomponent 2.a - Assessment of disaster and climate threats in the Project municipalities and development of guidelines and policy recommendations for supporting the integration into city strategic and spatial plans.
  - Subcomponent 2.b - Preparation of resilience strategies, investment planning and public awareness.
  - Subcomponent 2.c - Increased capacity of engineering, architecture and other relevant municipal professionals.
- **Component 3 – Project Management and Operations (EUR 2 million)**
- **Component 4 – Contingent Emergency Response Component (EUR 0 million)**

Eligible Municipal Infrastructure and Consulting Services will be:

a) Rehabilitation/strengthening, demolition/reconstruction of municipal infrastructure damaged by earthquakes, wildfires or floods in the period 2020 to 2021;
b) Increasing municipal disaster/emergency response capacity and resilience through acquisition of vehicles, equipment etc., for fire services;
c) Municipal investments demonstrated to reduce disaster and climate risk and ensure resiliency of infrastructure and improve the emergency response capacity of the municipality, extension or separation of stormwater infrastructure to reduce flooding, and investments to ensure transport segments are more resilient to flood;
d) Goods (as required for the civil works);
e) Consultancy Services for Design Review, preparation of bidding documents and supervision services (for Local Authorities).

Ineligible municipal investments will be:

- Administrative services and facilities of political parties, trade unions, etc.
- Religious infrastructure facilities and services,
- Investments in facilities with commercial characters (café, restaurant, etc.) or for national defense or prisons.
- Investments in reserve areas (except on a case-by-case basis as reviewed and agreed),
- Investments that involve the rehabilitation of Cultural Heritage (CH) sites or those, which may cause impacts on tangible or intangible (CH) sites,
- Investments with significant impacts on biodiversity,
- Investments with high environmental and/or social risk as per to the environmental and social risk classification defined in WB ESF,
- Investments which are not technically feasible,
- Investments which are not economically and financially viable,
- Investments which are not demand and needs driven, and that do not demonstrate substantial readiness, including not having approved feasibility studies, detailed designs or draft environmental and social documentation in line with World Bank ESF requirements,
- Investments that include any of the activities listed, or activities that produce and/or use materials listed, in the World Bank Group/International Finance Corporation Exclusion List (see https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist),
- Investments that trigger World Bank Operational Policy (OP) 7.50 (Projects on International Waterways), and
- Investments that involve new dams or dams under construction as per Annex-1 of ESS4.

Implementing Agency

ILBANK is a financial intermediary, and it will transfer the International Bank for Reconstruction and Development (IBRD) loan for the Project to borrowing municipalities/utilities for the financing of identified sub-projects of targeted municipalites/utilities. The Project will be implemented by the municipalities/metropolitan municipalities and their affiliated utilities that have been affected by wildfires, floods and earthquakes in 2020 and 2021, and requested for urgent needs of assistance, including Adana, Antalya, Balıkesir, Bursa, Düzce, Elazığ, Hatay, İzmir, Kastamonu, Konya, Malatya, Muğla, Rize, Samsun, Sinop, Tokat, Trabzon and Zonguldak provinces.

The final list of participant municipalities and utilities will be selected based on technical analysis of proposed subprojects, eligibility criteria of the Project as well as creditworthiness of local authorities.

Objective of Environmental and Social Management Framework (ESMF)

This ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts within the project activities; and it contains measures and plans to reduce, mitigate and/or offset adverse risks and impacts to be applied through sub-project preparation and implementation to ensure that social and environmental issues are systematically addressed at the subproject stage.

POLICY, REGULATORY AND INSTITUTINAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT

Institutional and Legal Framework for Environmental Protection and Conservation in Türkiye

The Ministry of Environment Urbanization and Climate Change (MoEUCC) is the responsible organization for the implementation of policies adopted for protection and conservation of the environment, and for sustainable development and management of natural resources.

The Turkish Regulation on Environmental Impact Assessment

The Turkish Environmental Law (Law No: 2872; Date of Ratification: 1983), which came into force in 1983, addresses environmental issues on a very broad scope. According to the basic principles that govern the application of the Environmental Law, and as stated in the Constitution, citizens as well as the state bear responsibility for the protection of environment. Under Article 10, Environmental Law sets out the general scope of the Environmental Impact Assessment (EIA) procedure in Türkiye, indicating that institutions, agencies and establishments that lead to environmental problems as a result of their planned activities are required to prepare Environmental Impact Assessment report or Project Information File (PIF).

The EIA Regulation (Official Gazette dated July 29, 2022 and numbered 31907) is largely in line with the European Union (EU) Directive on EIA. The key relevant steps of the Turkish EIA procedure, i.e. screening, public consultation, scoping, disclosure and supervision, are briefly reviewed below in Section 2.3 in the order they are prescribed to occur.

National Laws on Social Impacts

Although the Turkish EIA Regulation does not entirely meet the requirements of international standards in terms of social impacts, it does include some legal provisions for managing various social impacts and stakeholder engagement. In this respect, the social and legal framework applicable for this project should be considered under below classification:

- National Laws on Labour and Working Conditions
- National Laws on Land Acquisition
- National Laws on Right to Information Acquirement
- National Environmental Impact Assessment Regulation

International Agreements and Conventions

The Turkish national policy on environmental protection, cultural heritage and conservation of biological resources was developed on the basis of relevant international agreements signed or ratified by Türkiye. The construction and operation of the sub-projects have, as a minimum, to comply with the national policy.

World Bank's Environmental and Social Standards

The World Bank's new Environmental and Social Framework (ESF) will apply to the Project. The Environmental and Social Standards (ESSs) contained in the ESF, set the requirements to

be met by Borrowers with respect to the identification, assessment and reduction/mitigation of social and environmental risks and impacts associated with projects supported by the Bank through Investment Project Financing. Nine (as ESS 7 will not apply) out of the ten ESSs establish the standards that the Borrower and the project will meet through the project life cycle.

In accordance with the ESSs, the World Bank Group's (WBG) Environment, Health and Safety (EHS) Guidelines should be applicable to the project including but not limited to as follows:

- WBG's EHS General Guidelines;
- WBG's EHS Guidelines for Water and Sanitation; and
- WBG's EHS Guidelines for Toll Roads.

Key Differences between the Turkish EIA Regulation and the WB ESSs

The Turkish EIA procedures are, with some exceptions, in line with the WB's ESSs. The primary exceptions are in project categorization, scope of environmental and social assessment, and public consultation. Differences between them are described and gap filling measures provided in Section 2.7. In cases where the Turkish legislation differ from the ESSs, the more stringent one will be applied to the project implementation.

BASELINE ANALYSIS

The municipalities/utilities of Antalya, Düzce, İzmir, Kastamonu, Malatya, Muğla, Rize, Sinop, and Tokat have requested urgent need for assistance for construction works as well as the purchase of vehicles, equipment etc. The environmental, social and economic baseline of those nine provinces is provided in Section 3.

There will only be purchase of goods (vehicles, equipment etc., for fire services) for the rest of the municipalities/utilities (Adana, Balıkesir, Bursa, Elazığ, Hatay, Konya, Samsun, Trabzon, and Zonguldak). As there will not be any environmental and social risks and impacts associated with the purchase of goods, the baseline information is not provided for those provinces within this ESMF.

ENVIRONMENTAL AND SOCIAL RISK ASSESSMENT AND MANAGEMENT PROCESS

The overall project risk is rated as ***"Substantial"***. The main environmental risks of the Project are expected to be typical risks and impacts related to construction works and operation of sub-projects including; dust and noise emissions, hazardous, including Asbestos Containing Materials (ACM) and non-hazardous waste generation and disposal, Occupational Health & Safety (OHS) risks, interruptions to public services and infrastructure, and traffic safety risks, emission of bio-aerosols, odors, and vehicle exhaust due to waste collection and transportation activities, vibration from the operation of waste processing equipment, discharge of treated wastewater to receiving bodies, sludge and solids generation from water and wastewater treatment plants, and ecological impacts on nearby receptors and potential risks and impacts on cultural heritage sites.

Main social risks of the Project are expected to be involuntary resettlement (temporary or permanent economic and/or physical displacement), restriction of land use, loss of livelihoods,

potential exclusion of vulnerable groups (those who are not legal owners or renters/low income groups), labor risks related to OHS and community health and safety risks in civil works under construction of public infrastructure.

A number of steps and procedures needs to be followed to identify and manage the environmental and social impacts and risks of subproject activities. The stages of this process are defined below:

1) Environmental and social (E&S) screening of subproject proposals,
2) ILBANK consultation with World Bank to agree on the risk rating,
3) Preparation of site-specific Environmental and Social Assessment (ESA) documents for sub-projects as required, based on the screening outcome,
4) No further ESA is required for low-risk sub-projects,
5) The WB will do prior review of the ESA documents of the first five moderate risk subprojects and, after that, ILBANK will be responsible for the review of ESA documents for moderate risk subprojects, and the Bank will do the post review,
6) World Bank approval of the ESA documents as required for the substantial risk sub-projects,
7) Public disclosure of the draft final versions of the subproject-specific ESA documents,
8) Stakeholder consultation on the draft ESA documents,
9) Incorporation ESA documents into bidding documents and later – into contracts for the provision of works, and
10) Supervision, monitoring and reporting of sub-projects' E&S implementation.

Detailed potential environmental and social risks and impacts of each sub-project will be assessed during the preparation of the specific sub-project ESIA or ESMP. Proposed mitigation measures to avoid, reduce or compensate the impacts of such activities will be identified in these reports.

A general mitigation plan for the possible impacts of eligible municipal infrastructure sub-projects is given in Table 1. These should be taken into consideration in the preparation of site specific ESIAs/ESMPs for the sub-projects.

The recommended sub-management plans to be prepared are provided in Annex-2C.

Table 1 Generic Mitigation Plan for Eligible Municipal Infrastructure Sub-projects

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Traffic	Interruptions in Transport and Transport Safety	▪ Positioning clear warning and information signs around the construction zone. Imposing time constraints (e.g. 7AM to 5PM) for works. Considering disabled, women, children and people with special needs while locating and marking alternative roads (roundabouts) ▪ Traffic Management Plan will be prepared for all construction sites	Included in construction costs	Contractor
Construction	Air Quality	Dust emissions	▪ Close or cover trucks for the transport of materials. Spraying water on the ground where dust is generated, disposing of excess material and cleaning the location upon the finalization of works. Protective covers or curtains for zone where the largest amounts of dust are generated. ▪ Air Quality Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Air Quality	Exhaust gases from equipment and vehicles	▪ Restricting works during daytime (e.g. 7AM to 5 PM). ▪ Air Quality Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Noise and Vibration	Increase in noise and vibration levels	▪ Restricting works during daytime (e.g. 7AM to 5PM). Establish schedules and/or other forms of specific limitations for works. ▪ Noise and Vibration Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Spill outs of fuel, lubricant, antifreeze etc. may result in contamination	▪ Periodic examination of the condition of vehicles and other machinery and equipment used in the course of the performance of works. Compliant warehousing of fuel and lubricant, and in case of a spill out, isolation and cleaning of the location. ▪ Soil Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Topsoil loss, Deposit of excavated soil, erosion, landslides or sedimentation may occur.	▪ The provisions of the Regulation on the Control of Excavation Soil, Construction and Demolition Wastes shall be complied during land preparation and construction phase of the Project. ▪ Soil Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Damage to road cover	▪ Public roads and streets will be backfilled and recovered	Included in construction costs	Contractor
Construction	Water Resources and Wastewater	Water Quality and Domestic wastewater generation	▪ Discharge of wastewater, residues or other waste into groundwater or into surface water will be avoided. ▪ Water Resources Management Plan will be prepared if required.	Included in construction costs	Contractor

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Water resources	Periodic interruptions in water supply to neighboring population	▪ Scheduling interruptions in water supply in cooperation with the Water Supply Company and informing the population with the objective of minimizing the negative effect on the population. ▪ Water Resources Management Plan will be prepared if required.	Included in construction costs	Contractor and Water Supply Company
Construction	Ecosystem	Damage to trees and vegetation may onset in the course of construction	▪ Minimizing the areas requiring the removal of vegetation, and upon finalization of works, replace/restore removed vegetation. Special measures if needed to avoid damage to protected trees or species. ▪ Biodiversity Management Plan will be prepared if required.	Included in construction costs	Contractor
Construction	Cultural Heritage	There is a possibility of discovering artifacts or other cultural and historical items of value.	▪ Discontinuing all works. Contact responsible authorities. Organizing all necessary measures to protect the location. No works to proceed until official notification is received. ▪ Chance Finds Procedures will be prepared prior to construction works.	Included in construction costs	Contractor
Construction	Waste Management	Excavated and removed material is harmful to environment if it is not disposed of adequately. Especially if the material or waste is dangerous or might be dangerous (such as, for example, asbestos and cement pipes, pieces of profiles etc.)	▪ All non- waste and excavated material generated in the course of construction has to be deposited in the landfill and in a manner that is not harmful to the environment. Stone, soil and other materials that may be reused shall be utilized in the procedure of project realization. Materials that cannot be used and hazardous waste should be removed in compliance with entity level regulations. ▪ Waste Management Plan (including municipal, hazardous and non-hazardous wastes) will be prepared if required ▪ Specific precautions will be determined for managing Asbestos Containing Materials in the site-specific ESA documents	Included in construction costs	Contractor
Construction	Waste Management	Transportation management of waste (both hazardous and non-hazardous) to the appropriate landfills/disposal sites	▪ Wastes generated should only be temporarily stored on site in the temporary storage area that is maintained/equipped with appropriate precautions according to the type of wastes, when needed, and wastes should be transported to licensed disposal facilities with licensed transport vehicles appropriate to the type of waste. Information related to the operations in this context should be recorded and records should be kept. ▪ Waste Management Plan (including municipal, hazardous and non-hazardous wastes) will be prepared if required	Included in construction costs	Contractor
Construction	Community Health and Safety	Access to common resources or services may be interrupted due to construction works	▪ Time schedule for all construction works should be communicated with local communities prior to construction. Alternative and secure means to access resources and services should be introduced.	Included construction costs	Contractor

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
			▪ Community Health and Safety Management Plan will be prepared if required.		
Construction	Community Health and Safety	Community health and safety	▪ The construction area should be fenced to prevent trespassing. Necessary signage and lighting equipment shall be established. Traffic safety shall be established through appropriate management measures. Community should be informed about transfer of large machinery and equipment. If necessary, emergency drills should be implemented with the participation of the emergency authorities in the area. ▪ Design and the construction works of the projects should be in line with the WBG guidelines including the life and fire safety provisions.	Included in construction costs	Contractor/ Municipality
Construction	Labor	Labor Influx (not all sub-projects may have labor influx issues, however projects with long term construction works will require camps sites to be established to accommodate construction workers. Conflicts may arise between communities and workers)	▪ For sub-projects that may have labor influx issues, camp sites should be arranged to properly accommodate workers and meet their needs within the camp site. Workers must be provided with relevant trainings as needed. Workers will sign and receive a training on the Code of Conduct. Nearby communities will be consulted regarding the locations of the work camp.	Included in construction costs	Municipality/Contractor
Construction / Operation	Grievance Mechanism	Concerns and complaints of stakeholder and workers	▪ Consultation on risks and adverse impacts of the project and create opportunities to receive affected communities view on project ▪ Establishment of grievance mechanism to collect and provide timely resolution of affected communities concerns and grievances regarding of the client's environmental and social performance. ▪ Transparent public disclosure to inform each phase of the project through website, notice boards, telecommunication tools and public meetings. ▪ Establishing well designed and structured public questionnaire to receive feedback from affected communities	Included in project budget	Municipality Contractor Operator
Construction	Gender Based Violence/Sexual Exploitation and Abuse/Sexual	GBV/SEA/SH	▪ Information on GBV/SEA/SH service providers should be shared during public consultations. The Project GM should be designed to receive GBV/SEA/SH grievances anonymously and ensure they are addressed in a confidential and sensitive manner. Relevant Project staff should be trained in order to refer GBV survivors to existing identified service providers and	Included in construction costs	Contractor/ Municipality

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
	Harassment (GBV/SEA/SH)		ensure that they are provided services promptly. The Code of Conduct for workers will include the prohibition of GBV/SEA/SH.		
Construction	Occupational Health and Safety	Construction works can cause accidents that may threaten the health and safety of workers if measures are not taken.	▪ The workers shall be informed about job descriptions, responsibilities and risks about OHS. The workers will be provided working conditions in accordance with the Labor Law (such as wages, working hours, payment for overtime hours, period of rest, social security benefits). The workers will be provided with the necessary personal protective equipment and information on works and occupational safety through regular trainings. Before the construction works starts, a Risk Assessment Report shall be prepared for all works to be carried out and necessary measures shall be taken to avoid related risks. "Emergency Response Plans" shall be prepared for possible accidents and emergency situations (i.e., fires, earthquakes, floods, etc.) events and emergency teams shall be established and drills and training shall be carried out in line with the emergency scenarios. ▪ OHS Management Plan will be prepared to outline all the actions and procedures for ensuring OHS for all workers ▪ Specific precautions will be determined for working with Asbestos Containing Materials in the site specific ESA documents	Included in construction costs	Contractor/ Municipality
Construction / Operation	Vulnerable Groups	Identification of vulnerable groups impacted by the sub-projects	▪ Certain groups that may be considered vulnerable (people with disabilities, waste pickers, elderly, and certain groups with livelihood dependencies in the project region) should be identified. Their engagement in project planning and implementation should be ensured through consultations as required in the Stakeholder Engagement Plan. ▪ Certain vulnerable groups (i.e. waste pickers) might be earning income from the project affected area/land. Ensure that they are informed about the project and can continue to generate income or are assisted in finding similar or other livelihoods if they have to relocate from the areas where they are working	Included in ESA study costs	Municipality
Construction / Operation	Citizen Engagement	Lack of effective engagement of the citizens will reduce the positive impacts and benefits of the project	▪ Citizen engagement activities to facilitate effective two-way engagement among stakeholders, including Turkish citizens and other nationalities, municipalities, and SKIs, will seek to identify the needs and priorities of beneficiary groups to improve access to effective municipal services.	Included in project budget	Municipality

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Pre-Construction / Construction / Operation	Involuntary Resettlement	Negative impacts on livelihoods of project affected people	▪ Design works to minimize the involuntary land take ▪ Preparation of a Resettlement Plan ▪ Compensate losses resulted from involuntary resettlement, including economic displacement due to land acquisition for all shareholders (including formal, informal, renters, etc.) ▪ In case of people with special needs (elderly, women, children etc.) or disabled who could be negatively impacted from the construction, ensure that temporary measures for accessibility are put in place	Included in resettlement budget	Municipality
Construction / Operation	Contextual risks	Flooding, landslides, earthquakes	▪ Avoidance of vulnerable locations when selecting sites for subprojects	Included in project budget	Municipality
Operation	Water Resources	Poor operation may result in inadequate water quality released to the general population	▪ Establish emergency procedures for notification and alerting the public	Included in the operating costs	Operator
Operation	Chemicals	Environmental safety hazards from chlorine storage and use	▪ Establish continuous chlorination control and monitoring, chlorination equipment maintenance procedures, storage procedures, and emergency response procedures. Chlorination plant should have ambient monitoring and locked. Accessible only to authorized staff.	Included in the operating costs	Operator
Operation	Chemicals	Chlorine and other process chemicals leaks and spills	▪ Establish safe delivery/storage/handling procedures in accordance with material safety data sheets (MSDSs). Immediately contain and clean-up any spilled material.	Included in the operating costs	Operator
Operation	Sludge Management	Process sludge (filtration and flocculation processes)	▪ Sludge to be disposed on site approved by municipality. ▪ Sludge Management Plan will be prepared if required.	Included in the operating costs	Operator
Operation	Waste Management	Transportation management of waste (both hazardous and non-hazardous) to the appropriate landfills/disposal sites	▪ Wastes generated should only be temporarily stored on site in the temporary storage area that is maintained/equipped with appropriate precautions according to the type of wastes, when needed, and wastes should be transported to licensed disposal facilities with licensed transport vehicles appropriate to the type of waste. Information related to the operations in this context should be recorded and records should be kept.	Included in the operating costs	Operator
Operation	Occupational Health and Safety	Training	▪ The workers shall be informed about job descriptions, responsibilities and risks about OHS. The workers will be provided working conditions in accordance with the Labor Law (such as wages, working hours, payment for overtime hours, period of rest, social security benefits). The workers	Included in the operating costs	Operator

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
			will be provided with the necessary personal protective equipment and information on works and occupational safety through regular trainings. Before the operation, a Risk Assessment Report shall be prepared for all works to be carried out and necessary measures shall be taken to avoid related risks "Emergency Response Plans" shall be prepared for a possible accident and emergency, and emergency teams shall be established, and drills and training shall be carried out in line with the emergency scenarios. The workers shall be made aware of accessible GM.		
Operation	Community Health and Safety	Community health and safety	▪ The operations should be engaged without posing risk to the community safety. The facility should be fenced to prevent trespassing. If necessary, emergency drills should be implemented with the participation of the emergency authorities in the area.	Included in the operating costs	Operator
Operation	Community Health and Safety	Community conflict	▪ Consultation on risks and adverse impacts of the project and create opportunities to receive affected communities view on project ▪ Establishment of grievance mechanism to collect and provide timely resolution of affected communities concerns and grievances regarding of the client's environmental and social performance. ▪ Transparent public disclosure to inform each phase of the project through website, notice boards, telecommunication tools and public meetings. ▪ Establishing well designed and structured public questionnaire to receive feedback from affected communities	Included in the operating costs	Operator

INSTITUTIONAL ARRANGEMENTS AND CAPACITY FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT

Institutional Arrangements

Key actors in the implementation of this ESMF are the ILBANK PMU and project proponent municipalities/utilities.

ILBANK Project Management Unit

ILBANK Project Management Unit (PMU) will be responsible for coordinating and supervising implementation of the Project and for providing support to the sub-borrowers (municipalities/utilities). The PMU will be strengthened by hiring individual consultants, including a procurement specialist, an environmental specialist, a social specialist, an OHS specialist, a finance expert, a monitoring and evaluation (M&E) expert and a disaster risk management (DRM) expert (in case of need).

Municipalities/Utilities

The selected municipalities and their affiliated utilities will be responsible for sub-project investment implementation in accordance with their sub-loan agreements to be signed with ILBANK. They will establish Project Implementation Units (PIUs) to ensure adequate sub-project implementation after signature of sub-loan agreements. The PIUs will be staffed by municipal employees, and may be strengthened through recruiting individual consultants as deemed necessary. Municipalities/utilities are used to carry out infrastructure investments and are familiar with Turkish environmental, social and OHS legislation and construction procedures. They will be supported in accordance with the capacity strengthening for meeting WB requirements.

About ILBANK

Area of Operation

The scope of the work potentially includes water network(s), water treatment plant(s), sewerage network(s), wastewater treatment plant(s) paving, junction and road construction activities of local authorities, bridge construction and similar infrastructure projects as well as superstructure works. In addition to its domestic business partners, ILBANK has extensive cooperation with various international organizations such as the WB, European Investment Bank (EIB), Agence Française de Développement (AFD), Japan International Cooperation Agency (JICA) and Islamic Development Bank (IsDB) in the field of domestic operations as well as in the use of loans and funds abroad.

Environmental and Social Management System

The key procedural documents to manage the environmental and social risks and impacts (including screening, reviewing and monitoring) of the sub-projects which will be financed under this Project are the ESMF, Resettlement Framework (RF), Labor Management Procedures (LMP) and Stakeholder Engagement Plan (SEP) which are implemented throughout

the lifetime of the international funded projects. ILBANK disclosed[1],[2] ESCP and SEP in February 2022 for TEFWER Project. ILBANK is strengthening its Environmental and Social Management System (ESMS) as per the requirements of ESS 9 that will be utilized for all projects financed by the International Finance Institutions (IFI), no later than 120 days after the Loan Effective Date. This ESMF (along with Project's RF and SEP) is prepared by ILBANK, to be able to identify and manage the environmental and social risks/impacts of the sub-projects until the ESMS is in place, as per the ESCP of the Project, which meets the national legislation, requirements of the World Bank's Environmental and Social Framework (ESF). The draft version of the ESMF along with the RF and LMP will be, consulted upon following the review and clearance of the World Bank and disclosed no later than 30 days after the Loan Effective Date as declared in ESCP. ILBANK will be fully responsible for the satisfactory implementation of the E&S framework documents.

Environmental and Social Management Capacity of ILBANK

The PMU under ILBANK's International Relations Department has experienced staff in technical, procurement, environmental, social and financial management (FM)-related procedures of the World Bank. ILBANK staff received numerous trainings related to the World Bank's safeguard policies, and more recently – the ESF, as a part of the ESF Borrower Training roll out program.

Occupational Health and Safety

Türkiye's OHS legislation is generally applicable across all sectors and many industries. As a government agency, ILBANK is subject to national law on OHS of the Ministry of Labour and Social Security.

For Substantial and Moderate risk sub-projects, ILBANK will require that the sub-borrower municipality/utility to ensure that OHS measures are taken in compliance with the WB's ESS2 for Labor and Working Conditions and the World Bank Group (WBG) General Environmental Health and Safety (EHS) Guidelines in addition to the national OHS law. For the low-risk rated sub-projects, the national OHS legislation will be complied.

Labour and Working Conditions

ILBANK has published a corporate level Human Resource Policy[3] (Official Gazette no: 31414, dated: 05.03.2021) that is in line with national regulations as well as WB requirements. The policy defines the employee personal rights including working hours, leave (maternity, social events, unpaid), financial rights, working conditions, promotions etc.

ILBANK is committed to ensure compliance of its own operations and those of any contractors or sub- contractors working within the Project with the provision of the following:

[1] For English versions of the documents please see https://www.ilbank.gov.tr/sayfa/turkey-earthquake-floods-and-wildfires-emergency-reconstruction-tefwer-project

[2] For Turkish versions of the documents please see https://www.ilbank.gov.tr/sayfa/turkiye-deprem-sel-ve-orman-yanginlari-acil-imar-projesi

[3] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=38376&MevzuatTur=7&MevzuatTertip=5

- The Turkish Labour Law
- The Turkish OHS Law
- Requirements of ESS 2 Labor and Working Conditions of WB ESF
- World Bank Group General Environmental Health and Safety Guidelines
- ILBANK Human Resources Policy

ILBANK will put specific policies in place intended to maximize beneficial impacts of the Project and to minimize or mitigate its potential adverse impacts:

- a Human Resources Policy that prioritizes local residents in employment, thus maximizing socio-economic benefits to communities closest to operations;
- specific anti-discrimination policies and grievance management procedures.

Key management measures, reporting and monitoring of unregistered/uninsured employment, unequal employment opportunities for women etc. that may occur in civil works that ILBANK's or borrowing municipality's contractors are undertaking, will be covered under the project's LMP. The LMP will include such measures with particular attention to Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH).

Grievance Mechanism for Municipalities

ILBANK already established a Grievance Mechanism[4] in September 2021 and the relevant mechanism will be in place during the course of the Project.

Apart from the ILBANK Grievance Mechanism, a grievance mechanism (GM) will also be established by the municipalities in order to receive, resolve and follow the concerns and complaints of the project affected communities. Municipalities' PIU and construction contractor will be accessible for the stakeholders and will be responsible to respond to all grievances (complaints, requests, opinions, suggestions)) in line with the ILBANK GM Procedure (2 days registration, 10 days evaluation, 15 days response). Relevant grievances will be monitored by the ILBANK GM Team.

In addition, the project specific GM will include a channel to receive and address confidential complaints related with SEA/SH with special measures in place. If an employee faces SEA/SH issue s/he can either apply to a higher level superior or directly go to police station, as stipulated in the national referral system of the country for dealing such cases. The content and procedures of the project's GM will also have a reporting line on such cases in regard to SEA/SH issues and will be handled under full confidentiality. Municipality PIU receiving the SEA/SH related grievance should direct this to national referral systems immediately and record that this has been directed, as set out in the GM Procedure of ILBANK. All details of the complainant of the sensitive case will be kept strictly confidential.

[4] https://www.ilbank.gov.tr/storage/uploads/pagefiles/ilbank_gm_policy_1646748212.pdf

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

1 PROJECT DESCRIPTION

1.1 Introduction and Context

1.1.1 Country Context

Türkiye achieved rapid economic and social development in the 2000s, with poverty incidence more than halving and real Gross Domestic Product (GDP) increasing by 50 percent by 2008. Since the Global Financial Crisis (GFC), rapid growth continued but was increasingly associated with stagnant productivity, a rising current account deficit and growing foreign exchange-denominated debt stock. Türkiye then experienced a sharp external adjustment in mid-2018 as the Turkish Lira ("TL") depreciated more than 60 percent against the US dollar between January and September that year. This triggered a downturn in the Turkish economy as spending fell, inflation spiked, and the corporate sector struggled under an elevated debt burden.

Over the course of late 2018 and 2019, the economy went through significant adjustments. Current account imbalances declined sharply, banks and corporates reduced their exposure to foreign currency debt, private sector credit growth resumed, and demand had started to recover. By the end of 2019, economic activity was rebounding with strong growth in the fourth quarter but disrupted by the onset of the COVID-19 pandemic in early 2020. The COVID-19 health crisis quickly turned into a deep economic turmoil all around the world and Türkiye experienced a sharp contraction in GDP (10.4 percent, year-on year) in 2020 Q2. The government responded swiftly to COVID-19 with a large economic stimulus program, summed up 14% of GDP, focused on opening credit channels and loosening monetary policy and other regulatory measures as well as direct support. However, the policy frameworks that ensured a strong economic rebound during the pandemic also heightened macroeconomic risks, including rising inflation, currency depreciation, corporate and banking sector vulnerabilities and decline in reserve buffers.

A favorable base effect, an easing of restrictions permitted by accelerated vaccinations, and supportive external demand led to double digit GDP growth in 2021 with the economy and employment surpassing pre-pandemic levels. The monetary easing cycle since September 2021 had adversely affected macro-financial conditions, the TL depreciated significantly and inflation accelerated to its fastest rate since August 2018, external pressures mounted, and corporate and financial sector vulnerabilities grew. While The Turkish economy grew by 11 percent in 2021, it is expected to grow by 2.0 percent and 3.0 percent in 2022 and 2023.

Meanwhile, floods, wildfires, storms and landslides are frequent events in Türkiye and result in localized losses. Observed and anticipated climate change impacts, such as more intense precipitation, extreme heat and rising sea level, are expected to lead to increasing risks to natural disasters, including more frequent and intense flooding in low-lying areas of river deltas and coastal cities and other extreme weather events, such as storms, hail, and tornadoes. For coastal cities, flooding will not only be an increasing threat to human life, but economic losses are projected to increase as well. A conservative projection of a 20 cm sea level rise, with no adaptation measures taken, would increase the mean annual disaster loss for Istanbul, for example, from $13 million to $327 million, a 40 cm increase to $1.746 billion. A similar trend

is observed in Izmir, with losses increasing from $7 million to $314 million and $997 million respectively. Although less frequent, earthquakes have claimed the highest number of lives and caused the greatest economic loss in Türkiye, with 76 earthquakes since 1990 resulting in approximately 20,000 fatalities, a total affected population of 4.4 million, and direct losses exceeding $25 billion. Going forward climate models predict increasing anomalies in precipitation patterns with increased incidence of extreme rain and flooding on the one hand as well as protracted drought, extreme heat and forest fires on the other. In fact, 2021 marked both the most severe forest fires in Türkiye's south and west regions recorded in history as well as catastrophic flooding in the north region. As a result of rising temperatures, extreme variability in rainfall and protracted heatwaves, both flooding and wildfires are likely to become more frequent with implications for cities, agriculture and tourism. Increased incidence of forest fires in turn may further contribute to greenhouse gas (GHG) emissions in the future. Therefore, it can be concluded that the intended long term sustainable growth in Türkiye requires a reduction in the physical, social, and economic shocks associated with geophysical and climate change-induced disasters.

Türkiye has enacted regulatory and institutional reforms to reduce seismic risk in the built environment, often in response to major disaster events. Over time, these revisions have resulted in a strong regulatory framework for seismic resilient design and construction of buildings and infrastructure and improved supervision and enforcement of the regulations. The most recent probabilistic seismic hazard map of Türkiye was finalized in 2016 under the leadership of Türkiye's Disaster and Emergency Management Presidency (AFAD) which also revised the standing earthquake code in 2016. Endorsed by the decision of the Cabinet of Ministers, this seismic hazard map of Türkiye provides a consistent and official measure of the seismic hazard across the country and facilitates mainstreaming of seismic risk reduction investments. However, despite these advances, Türkiye has millions of buildings that were constructed prior to 2000 when the modern seismic codes were introduced. Generally, buildings that are prior to 2007 or with poor adherence to the 1998 code are considered to have poor construction with higher chance of serious damage or collapse due to earthquakes as well as higher risks for flooding, landslides, snow and wind loading. Buildings constructed with strong adherence to the 2007 code are considered by engineers as sufficiently resistant to earthquakes such that they can be used in the aftermath of disaster. Seismic resistance, as defined under this Project, will refer to a building complying with the structural requirements provided under the Earthquake Regulation which has been updated and entered into force on January 1, 2019.

1.1.2 Sectoral and Institutional Context

Iller Bankası A.S. (ILBANK) is an incorporated, non-deposit-taking development and investment bank established in June 1933 that provides financial resources to municipalities and is considered a financial intermediary (FI). ILBANK has two core functions: (a) support of infrastructure development at the subnational level through technical assistance, grants, and loans, and (b) transfer of central tax revenues to the local authorities.

Managing climate change and disaster risk requires enhanced efforts in developing resilient infrastructure, therefore ILBANK has a critical role to play. In this manner, within the scope of the 11th Development Plan of the Republic of Türkiye (2019-2023), ILBANK's fields of activity vary, with a focus on projects that produce high benefits and value in production and common use areas, contribute to growth and development, and improve the spatial quality and

quality of life extensively, especially in disaster risk areas i.e. construction or rehabilitation of stormwater, drainage, flood management systems, resilient bridges, roads, underpasses and junctions.

The World Bank has been a leading partner in the thematic areas of Disaster Risk Management (DRM) and urban development in Türkiye for many years. World Bank is collaborating with ILBANK on a range of activities which will provide climate and disaster risk management technical support and training to support ILBANK in integrating climate and disaster risks into municipal investment projects and capturing climate co-benefits associated with project-level interventions. ILBANK completed a grant financed activity with the World Bank named "Support to ILBANK on Climate and Disaster Risk Management Capacity Building". This activity provided ILBANK with a clear and practical framework to identify both relevant climate and disaster risks to municipal projects and cost-effective measures that could increase the resilience of planned infrastructure investments – with a focus on water and transport infrastructure.

Türkiye Earthquake, Floods and Wildfires Emergency Reconstruction (TEFWER) Project has been developed by the participation of ILBANK and World Bank to support municipalities to undertake urgent repairs, structural strengthening, and if needed demolition/reconstruction, rehabilitation or new construction of damaged municipal owned infrastructure and to put in place measures aimed at increasing disaster preparedness and climate adaptation. The Project will also support rapid response to future disasters through a funded Contingent Emergency Response Component (CERC).

TEFWER Project aims to respond to the immediate and most critical reconstruction and rehabilitation needs from recent wildfires, floods and earthquakes. All interventions under the Project are designed from the start to consider green and sustainable approaches, such as building resilience to disasters and climate change through structural strengthening of infrastructure and increasing emergency response capacity for fires, floods and other disasters. By taking an integrated and holistic approach, which is in line with national strategic plans and international agendas, such as the Sustainable Development Goals, every intervention is expected to yield multiple positive benefits,

The municipalities that have been affected by wildfires, floods and earthquakes in 2020-2021 and requested for urgent needs of assistance are Adana, Antalya, Balıkesir, Bursa, Düzce, Elazığ, Hatay, İzmir, Kastamonu, Konya, Malatya, Muğla, Rize, Samsun, Sinop, Tokat, Trabzon and Zonguldak.

The final list of participant municipalities and utilities will be selected based on technical analysis of proposed subprojects as well as creditworthiness of local authorities.

1.2 Project Development Objective and Its Level Based Indicators

The Project Development Objective ("PDO") is to support green and resilient disaster reconstruction in municipalities affected by earthquake, floods or wildfires, to strengthen municipal capacity for disaster resilience, and to respond promptly and effectively in the event of an Eligible Crisis or Emergency.

Accordingly, PDO level indicators of the Project are listed as below:

- People benefitting from municipal infrastructure with restored operational capacity and improved resilience (number, gender disaggregated).
- People benefitting from improved disaster and emergency response capacity (number, gender disaggregated).
- Percentage of trained municipal staff who expressed that they are able to integrate green, resilient and inclusive development into institutional action plans and future investment portfolio after receiving capacity building activities (percentage, gender disaggregated).

1.3 Project Components

The Project would support the ILBANK to support municipalities to undertake urgent repairs, structural strengthening, and if needed demolition/reconstruction, rehabilitation or new construction of damaged municipal owned infrastructure and to put in place measures aimed at increasing disaster preparedness and climate adaptation. The Project will also support rapid response to future disasters through a funded Contingent Emergency Response Component (CERC). All investments will integrate, where feasible, improvements in Energy Efficiency (EE) and opportunities to harness renewable energy, and other design elements aimed at increasing climate change mitigation and adaptation (e.g., increased capacity in storm water pipes, and reducing urban heat island effects). ILBANK will be the Financial Intermediary (FI) for the Project and affected cities will be sub-borrowers, and per standard practice ILBANK will ensure the financial viability of the sub-borrowers.

The Project includes four components: (a) Green and Resilient Rehabilitation, Reconstruction and Construction of Municipal Infrastructure and Actions to Strengthen Municipal Resilience; (b) Technical Assistance to Support Green, Resilient and Inclusive Cities; (c) Project Management and Operations; and (d) Contingent Emergency Response Component (CERC).

Component 1. Green and Resilient Rehabilitation, Reconstruction and Construction of Municipal Infrastructure and Actions to Strengthen Municipal Resilience (EUR 412 million).

This component will finance demand-driven municipal investments to support green and resilient restoration and reconstruction of damaged municipal infrastructure and actions aimed at increasing municipal response capacity and resilience for wildfires, floods, earthquakes and other disasters. Based on damage sustained and requests received, the investments under this component will include restoration of water and wastewater services, and restored and resilient transport investments. Activities related to expansion of stormwater systems and increased municipal capacity to respond to flood, wildfire and other disasters will build municipal resilience. The component will finance supervision consultancies and civil works. The types of activities are further elaborated below.

a. Reduced urban flooding through investment in resilient and climate-change sensitive stormwater systems. Recent urban floods in Türkiye highlight the challenges of i) short duration, high intensity rainfall events that are increasingly observed due to climate change and can easily overwhelm city stormwater systems; ii) increased impermeable surfaces within cities that significantly increase rainfall run-off; iii) urban development over ephemeral water systems; and iv) climate change which is

increasing periods of aridity punctuated by more intense rainfall events that are beyond the historical design specifications of stormwater systems. These challenges in combination contributed significantly to the flood events over the 2021 summer in Türkiye. Activities that may be financed include expansion of stormwater systems (including separation from wastewater systems), restoration and rehabilitation of damaged stormwater systems and pumping stations, and studies to inform new design and urban standards to reduce rainfall run off and increase capacity in stormwater systems.

b. Increase emergency response capacity within municipalities for flood, wildfire and other disasters. Municipal firefighting services are critical for managing all types of emergencies, and to reduce the extent and impact of fire and floods through rapid and professional response. In many cases, due to rapid urban growth and climate change impacts, firefighting services currently do not have access to the modern equipment commensurate with their changed and expanded response areas and functions, including appropriate equipment for swift water rescue, flood response and to fight fires at the wildland-urban interface. This subcomponent will finance the carrying out of civil works and acquisition of vehicles and equipment required to increase response capacity of municipal firefighting services for wildfires, floods, storms and earthquakes, and as such, to ensure that the municipalities are better adapted and prepared to respond climate change-imposed challenges and the expected growing impact of extreme weather and natural hazards.

c. Restored and improved resilience of water and wastewater services. The wildfires and floods resulted in damage to critical water services, such as water and wastewater treatment plants and network lines and highlighted the vulnerability of these services to disasters and climate change. As part of restoration efforts, water and wastewater systems will be assessed for disaster and climate risks and planned repairs, reconstruction, upgrading activities, and new construction of water system will integrate improvements to boost sustainability and resilience, ensure adaptation of the water and wastewater infrastructure to the climate change and promote complementary nature-based solutions. New water networks will be used to provide healthy drinking water in case of disaster as well as to support firefighting services and will improve the access to resilient and safe water services. New water networks will also contribute to improve the disaster and emergency response capacity of municipalities.

d. Resilient transport and evacuation routes. Activities will include the construction of, and reconstruction of damaged, bridges, underpasses and connection roads to restore and facilitate access during heavy rains and floods as well as ensure resistant structures during/after earthquakes. The technical and hydrological studies, and the designs for repair and strengthening or reconstruction of the bridges will consider more intense water flows, including floods associated with 500-year return periods, to ensure reconstructed bridges and roads are adapted to future climates. New and reconstructed bridges and roads will include dedicated space/laneways for cyclists and pedestrians to travel safely and can act as evacuation routes in the event of disaster.

e. Municipality Capacity Building Activities. Under the Project, Project Implementation Units (PIUs) will be established for each of the municipalities benefiting under the Project. This subcomponent will finance relevant project management and implementation support activities including hiring of individual consultants with expertise in engineering, architecture, climate change, disaster risk management (DRM), urban planning, environment, social, communication and outreach, monitoring and evaluation, Occupational Health and Safety (OHS), and other necessary technical areas, as needed. Other costs associated with sub-project supervision, monitoring and evaluation, communication and outreach, training of PIU staff, etc., will also be covered. The subcomponent would also finance requirements related to the Bank's fiduciary policies and guidelines, as well as the implementation of environmental and social framework. Any costs incurred by ILBANK in the discharge of its Implementing Agency role on behalf of smaller municipalities will also be financed from this component.

The eligibility and prioritization approach for subprojects is briefly summarized in Annex 1.

Component 2. Technical Assistance to Support Green, Resilient and Inclusive Cities (EUR 5 million)

This Component will support ILBANK and municipalities to build a green, resilient and inclusive future by ensuring that there is sufficient institutional and technical capacity to design, supervise and implement investment projects that integrate disaster and climate risks, to explore options to reduce carbon emissions, to improve air quality and to support residents during disaster response, recovery and reconstruction. The outcome of this activity will be: i) guidelines and policy recommendations that improve the development of municipal strategic and spatial plans that integrate disaster and climate risks to natural hazards and climate risks, ii) publicity and visibility activities in order to increase awareness with respect to disaster and climate risks, iii) the identification of investment priorities that are integrated into strategic city plans and iv) increased capacity within Project municipalities to understand and manage disaster and climate risks.

The following activities collectively contribute to the achievement of this outcome and will be financed under this component:

a) Assessment of disaster and climate threats in the Project municipalities and development of guidelines and policy recommendations for supporting the integration into city strategic and spatial plans. The recent disasters affecting the Project municipalities have highlighted the need to better assess disaster and climate threats, under current and future climate scenarios.

b) Preparation of resilience strategies, investment planning and public awareness. This will include consultancy services for the preparation of resilience strategies for the most prominent risks and investment planning to advance the climate resilience in municipalities, including options for reduced emissions. Support to increased public awareness of disaster and climate risks will also be included.

c) Increased capacity of engineering, architecture and other relevant municipal professionals. The Project will have significant engagement with public sector professionals around structural strengthening, reconstruction, and repairs to infrastructure. Identifying capacity development needs and providing training on an on-demand basis to increase capacity overall of beneficiary municipalities. Moreover, this training will be prioritized towards female professionals in these traditionally male-dominated sectors.

Component 3: Project management and operations (EUR 2 million)

ILBANK's Project Management Unit (PMU) will be responsible for the implementation of the project. This component will finance goods, consulting services related to day-to-day project management, monitoring and evaluation, reporting, and project communications. This component will support hiring of individual consultants with expertise in engineering, climate change, DRM, urban planning, transportation, environment, social, financial management, procurement, communication and outreach, monitoring and evaluation, OHS, and other necessary technical areas. It will also finance requirements related to the Bank's fiduciary policies and guidelines, as well as the implementation of environmental and social framework.

Component 4: Contingent Emergency Response Component (EUR 0 million)

This component would support emergency recovery and reconstruction efforts under an agreed action plan of activities designed as a mechanism to implement the government's response to an emergency. This Component would include rapid procurement and disbursement procedures to cover emergency response costs (such as contracting emergency works, procurement of goods and services) following an adverse natural event, health crisis or technological disaster. The contingent emergency component would be triggered by an official declaration of an emergency or disaster, in accordance with Türkiye's laws and policies. The procedure for declaring the emergency, types of adverse events covered, and the types of eligible investments will be described in a standalone Contingent Emergency Response Component (CERC) Manual and included in the Environmental and Social Management Framework (ESMF). This component would also allow rapid reallocation of uncommitted International Bank for Reconstruction and Development (IBRD) financing from other Components (if needed).

1.4 Ineligible Projects

Ineligible municipal investments will be:

- Administrative services and facilities of political parties, trade unions, etc.
- Religious infrastructure facilities and services
- Investments in facilities with commercial characters (café, restaurant, etc.) or for national defense or prisons.
- Investments in reserve areas (except on a case-by-case basis as reviewed and agreed).
- Investments that involve the rehabilitation of Cultural Heritage (CH) sites or those, which may cause impacts on tangible or intangible (CH) sites
- Investments with significant impacts on biodiversity
- Investments with high environmental and/or social risk
- Investments which are not technically feasible,

- Investments which are not economically and financially viable,
- Investments which are not demand and needs driven, and that do not demonstrate substantial readiness, including not having approved feasibility studies, detailed designs, or draft environmental and social documentation in line with World Bank ESF requirements,
- Investments that include any of the activities listed, or activities that produce and/or use materials listed, in the World Bank Group/International Finance Corporation Exclusion List[5]
- Investments that trigger World Bank Operational Policy (OP) 7.50 (Projects on International Waterways); and
- Investments that involve new dams or dams under construction as per Annex-1 of ESS4.

1.5 Implementing Agency

ILBANK is a financial intermediary (FI) for the Project components and it will transfer the IBRD loan to borrowing municipalities/utilities for the financing of identified sub-projects. The selected municipalities/utilities (Adana, Antalya, Balıkesir, Bursa, Düzce, Elazığ, Hatay, İzmir, Kastamonu, Konya, Malatya, Muğla, Rize, Samsun, Sinop, Tokat, Trabzon and Zonguldak) will be the sub-borrowers for this project. The municipalities/utilities will be responsible for sub-project investment implementation in accordance with their sub-loan agreements to be signed with ILBANK. They will establish Project Implementation Units (PIUs) to ensure adequate sub-project implementation after signature of sub-loan agreements.

The organizational structure of ILBANK consists of the General Assembly, Board of Directors, Board of Auditors, General Directorate, Head of Departments, and Regional Directorates (Figure 1).

[5] https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist

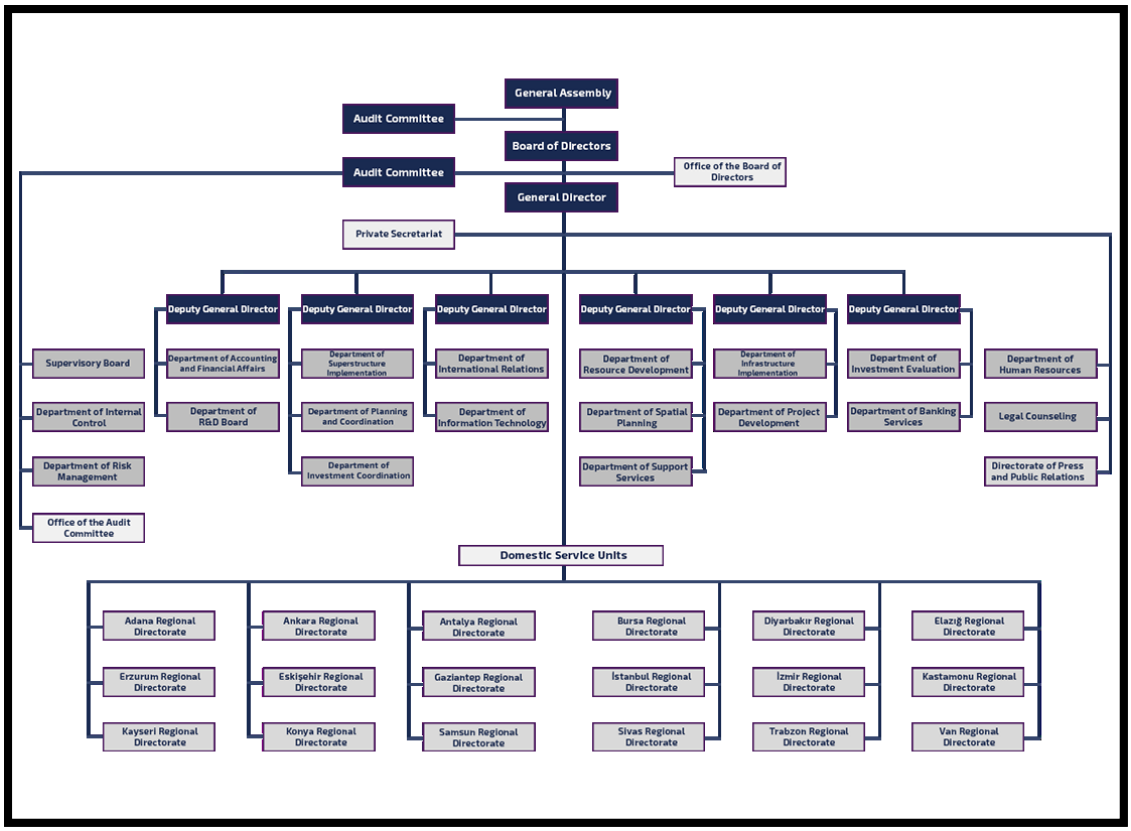


Figure 1 Organization Chart of ILBANK

General Assembly is the highest authorized body of ILBANK. It consists of 20 members chosen from the provincial assembly members to represent the provincial special administrations, and 1 mayor from each selected municipality, chosen by the Union of Municipalities council to represent the municipalities.

Board of Directors is the decision-making body in charge. Its 4 members are assigned by the ministry and 2 members are chosen by the General Assembly from the list of assembly member mayors and representatives of the provincial special administrations, suggested by the Ministry of Interior.

Director General is responsible for the coordination of the efficient and commercially healthy execution of the Bank's actions. The General Directorate has five directorate branches and 18 national service units which deliver the local administration services. Each directorate branch consists of three departments.

1.6 Purpose of Environmental and Social Management Framework (ESMF)

The key procedural documents managing the project's environmental and social screening, review and monitoring procedures for sub-projects are the ESMF (this document), Resettlement Framework (RF), Labor Management Procedures (LMP) and Stakeholder Engagement Plan

(SEP) which are implemented throughout the lifetime of the international funded projects. ILBANK disclosed[6],[7] ESCP and SEP in February 2022 for TEFWER Project.

ILBANK is strengthening its Environmental and Social Management System (ESMS) as per the requirements of ESS 9 that will be utilized for all projects financed by the International Finance Institutions (IFI), no later than 120 days after the Loan Effective Date. This ESMF (along with Project's LMP, RF and SEP) is prepared by ILBANK, to be able to identify and manage the environmental and social risks/impacts of the sub-projects until the ESMS is in place, as per the ESCP of the Project, which meets the requirements of the national legislation and requirements of the World Bank's Environmental and Social Framework (ESF). The draft version of the ESMF along with the SEP, RF and LMP will be consulted upon following the review and clearance of the World Bank and disclosed no later than 30 days after the Loan Effective Date, as per the Project's ESCP. ILBANK will be fully responsible for the satisfactory implementation of the E&S framework documents.

As the sub-projects have not been identified yet, their potential social and environmental risks and impacts cannot be assessed at this stage. This ESMF sets out the principles, rules, guidelines and procedures for screening, assessing, and managing the potential social and environmental impacts of the sub-projects which will be financed by the TEFWER Project. It contains measures and plans to avoid, and where avoidance is not possible, to reduce, mitigate and/or offset potential adverse risks and impacts. The ESMF specifies the most likely applicable social and environmental policies and requirements and how those requirements will be met through procedures for the screening, assessment, approval, mitigation, monitoring and reporting of potential social and environmental risks and impacts associated with the activities to be supported.

The E&S risk categorization and E&S assessment requirements of sub-projects will be determined jointly by ILBANK and WB teams. After selection of the sub-projects to be financed, specific Environmental and Social Impact Assessment (ESIA) reports and/or Environmental and Social Management Plans (ESMPs), Stakeholder Engagement Plans (SEPs), Resettlement Plans (RPs) and/or Ex-post Social Audit Report will be prepared, as and when necessary, throughout the lifetime of the project. The framework E&S documents will be integrated into the Operational Manual of the project and the core elements will be referred in the Loan Agreement. Therefore, ILBANK will be fully responsible for the satisfactory implementation of the E&S documents.

The ESMF will comply with the national legal framework and the World Bank's Environmental and Social Framework (ESF), its Environmental and Social Standards (ESSs) and World Bank Group Environmental Health and Safety Guidelines (WBG EHSGs) as deemed applicable to the TEFWER Project.

The national legal framework which is provided in Section 2 is mainly based on Environmental Law No.2872, which is ratified in August 1983 (Official Gazette dated 11.08.1983 and numbered 18132). Several by-laws and decrees are enforced under the Environmental Law

[6] For English versions of the documents please see https://www.ilbank.gov.tr/sayfa/turkey-earthquake-floods-and-wildfires-emergency-reconstruction-tefwer-project

[7] For Turkish versions of the documents please see https://www.ilbank.gov.tr/sayfa/turkiye-deprem-sel-ve-orman-yanginlari-acil-imar-projesi

including the Regulation on Environmental Impact Assessment (henceforth "EIA Regulation") (Official Gazette No. 31907, July 29, 2022).

The main mechanism by which ILBANK will comply with WB's ESF will be the ESMS and the ESMF. The ESMF is the key document committed by ILBANK to comply with national legislation and WB's ESF which will be shared with stakeholders before implementation starts.

2 POLICY, REGULATORY AND INSTITUTINAL FRAMEWORK FOR ENVIRONMENTAL AND SOCIAL ASSESSMENT

2.1 Institutional and Legal Framework for Environmental Protection and Conservation in Türkiye

Turkish environmental regulations were developed in line with national and international initiatives and standards, and some of them have been revised within last ten years to be harmonized with the EU Directives in the scope of Türkiye's pre-accession efforts. It should be noted here that, revisions and amendments on Turkish environmental regulations as per to the abovementioned purposes are still ongoing.

The Ministry of Environment Urbanization and Climate Change (MoEUCC) is the responsible organization for the implementation of policies adopted for protection and conservation of the environment, and for sustainable development and management of natural resources.

The MoEUCC (central organization) is based in Ankara, and it has provincial directorates in each province. The MoEUCC has an overall coordinating role for the development and implementation of environmental policies in Türkiye, including the harmonization process for the EU environmental acquis. The central organization is mainly composed of the following primary directorates and departments:

- General Directorate of Meteorology
- Housing Development Administration
- Türkiye Real Estate Participation Bank
- General Directorate of ILBANK
- General Directorate of Land Registry and Cadaster
- General Directorate of EU and Foreign Relations
- Housing Development Administration
- Türkiye Real Estate Participation Bank
- General Directorate for ILBANK
- General Directorate for Land Registry and Cadaster
- General Directorate of EU and Foreign Relations
- General Directorate of Environmental Management
- General Directorate of Environmental Impact Assessment, Permit and Inspection
- General Directorate for Combating Desertification and Erosion
- Turkish Directorate of Environment Agency
- Directorate of Climate Change
- General Directorate of Infrastructure and Urban Transformation Services
- General Directorate of Geographic Information Systems
- General Directorate of Spatial Planning
- General Directorate of National Estate
- General Directorate of Construction Works
- Department General for Personnel
- Directorate for Strategy Development
- Department of Support Services
- Department of Training and Publication
- Department of Revolving Fund
- Directorate of High Technics Board
- General Directorate of Legal Services

- General Directorate of Vocational Services
- Directorate General for Preservation of Natural Assests
- Directorate General for Local Authorities
- Directorate of Guidance and Inspection
- Directorate of Internal Auditing Unit
- Office of Press and Public Relations Counsellor.

Main environmental responsibilities of the MoEUCC can be summarized as below:

- Prepare the legislation on environment, public works, and housing development and monitor and audit the related implementations;
- Identify the principles and policies on environmental protection, rehabilitation of environment and prevention of environmental pollution, develop standards, criteria and programs in this context; outline the principles for implementing and monitoring these standards and criteria; undertake the works related to climate change;
- Assess the impacts of all facilities/activities that pollute the environment due to their activities resulting in solid, liquid or gaseous waste disposal/discharge into receiving environments; monitor, audit and issue the permits of such facilities/activities;
- Perform the measurements/analyses and monitoring studies concerning receiving environments;
- Establish the plans and policies regarding the global climate change and measures to be taken against its effects.

For the management of environmental issues, MoEUCC collaborates with other ministries (including their provincial organizations where relevant), government agencies and relevant stakeholders, such as;

- Ministry of Transport and Infrastructure
  - ✓ General Directorate of Highways,
  - ✓ General Directorate of Infrastructure Investments.
- Ministry of Agriculture and Forestry
  - ✓ General Directorate of Nature Protection and National Parks,
  - ✓ General Directorate of Water Management,
  - ✓ General Directorate of State Hydraulic Works,
  - ✓ General Directorate of Forestry,
  - ✓ General Directorate of Agricultural Reform.
- Ministry of Culture and Tourism
  - ✓ General Directorate of Cultural Heritage and Museums
- Ministry of Energy and Natural Resources
  - ✓ General Directorate of Mining and Petroleum Affairs,
  - ✓ General Directorate of Mineral Research and Exploration.
- Ministry of Labour and Social Security
  - ✓ General Directorate of Occupational Health and Safety,
  - ✓ General Directorate of Labour.
- Ministry of Health
  - ✓ General Directorate of Health Services,
  - ✓ General Directorate of Public Health.

2.2 National Environmental Legislation and Regulatory Requirements

The Turkish Environmental Law (Law No: 2872; Date of Ratification: 1983), which came into force in 1983, addresses environmental issues on a very broad scope. According to the basic principles that govern the application of the Environmental Law, and as stated in the Constitution, citizens as well as the state bear responsibility for the protection of environment. Complementary to the Environmental Law and its regulations, other laws also govern the protection and conservation of the environment, resources and cultural and natural assets, the prevention and control of pollution, and the implementation of measures for the prevention of pollution. Besides, there are also other laws related with public health, OHS, and labor issues which have intersections with environmental issues and which are applicable to the Project. Some of these laws are listed below:

- Conservation of Cultural and Natural Assets Law (Law No: 2863, Date of Ratification: 1983)
- Energy Efficiency Law (Law No: 5627, Date of Ratification: 2007)
- Forestry Law (Law No: 6831, Date of Ratification: 1956)
- Groundwater Law (Law No: 167, Date of Ratification: 1960)
- Labor Law (Law No: 4857, Date of Ratification: 2003)
- Law on Soil Protection and Land Use (Law No: 5403; Date of Ratification 2005; Amendment Law No: 6537; Date of Ratification 2014)
- Municipality Law (Law No: 5393, Date of Ratification: 2005)
- Metropolitan Municipality Law (Law No: 5216, Date of Ratification: 2004)
- National Parks Law (Law No: 2873, Date of Ratification: 1983)
- Occupational Health and Safety Law (Law No: 6331, Date of Ratification: 2012)
- Pastures Law (Law No: 4342, Date of Ratification: 1998)
- Public Health Law (Law No: 1593, Date of Ratification: 1930)
- Social Insurances and General Health Insurance Law (Law No: 5510, Date of Ratification: 2006)
- Law on Relieves and Measures to be Taken Against Disasters Affecting Communal Life (Law No. 7269 Date of Ratification: 1959)
- Law on Transformation of Disaster-Prone Areas (Law No. 6306 Date of Ratification: 2012)

Besides, there are regulations and communiques applicable to the Project activities, mainly related with environment and also cross-cutting environmental issues. These are listed below tables:

Table 2 Waste Management Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Waste Management Regulation	April 2, 2015	29314
Regulation on Sanitary Landfilling of Wastes	March 26, 2010	27533
Regulation on the Management of Waste Oil	December,21,2019	30985
Regulation on the Control of Waste Vegetable Oil	January 6, 2015	29378
Regulation on the Control of Packaging Waste	June 26, 2021	31523
Regulation on the Control of Medical Waste	January 25, 2017	29959
Regulation on the Control of End-of-Life Tires	November 25, 2006	26357
Regulation on the Control of Waste Batteries and Accumulators	August 31, 2004	25569
Regulation on Control of Waste Electric and Electronic Goods	May 22, 2012	28300
Regulation on the Control of Excavation Materials, Construction and Demolition Wastes	March 28, 2004	25406
Regulation on Zero Waste	July 12, 2019	30829

Table 3 Water Quality Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Water Pollution Control Regulation	December 31, 2004	25687
Regulation on the Water Intended for Human Consumption	February 17, 2005	25730
Regulation on the Control of Pollution Caused by Hazardous Substances in and around Water Environment	November 26, 2005	26005
Regulation on the Protection of Ground Waters against Pollution and Deterioration	April 7, 2012	28257
Surface Water Quality Regulation	November 30, 2012	28483
Urban Wastewater Treatment Regulation	January 8, 2006	26047
Communiqué on Technical Procedures in Wastewater Treatment Plants	March 20, 2010	27527

Table 4 Air Quality Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Assessment and Management of Air Quality	June 6, 2008	26898
Industrial Air Pollution Control Regulation	July 3, 2009	27277
Regulation on the Control of Odor Causing Emissions	July 19, 2013	28712
Regulation on the Monitoring of Greenhouse Gas Emissions	May 17, 2014	29003
Regulation on Exhaust Gas Emission Control	March 11, 2017	30004
Regulation Concerning the Ozone Depleting Substances	April 7, 2017	30031

Table 5 Ambient Noise Control and Management Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Assessment and Management of Environmental Noise	June 4, 2010	27601
Regulation on the Environmental Noise Emissions Caused by Equipment Used Outdoors	December 30, 2006	26392
Regulation on Protection of Buildings Against Noise	May 31, 2017	30082

Table 6 Soil Quality Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Control of Soil Pollution and Lands Contaminated by Point Sources	June 8, 2010	27605

Table 7 Environmental Management, Permitting and Planning Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Environmental Impact Assessment Regulation	July 29, 2022	31907
Environmental Auditing Regulation	June 12, 2021	31509
Regulation on Environmental Permits and Licenses	September 10, 2014	29115
Regulation on Wastewater Collection and Disposal Systems	January 6, 2017	29940
Regulation on the Methods and Principles to be Followed in Determining the Tariff for Wastewater Infrastructure and Domestic Solid Waste Disposal Facilities	October 27, 2010	27742

Table 8 Chemicals and Other Hazardous Substances Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Classification, Labelling and Packaging of Materials and Mixtures	December 11, 2013	28848
Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals	June 23, 2017	30105
Regulation on Material Safety Data Sheets on Hazardous Materials and Mixtures	December 13, 2014	29204
Regulation on Transport of Hazardous Materials by Road	June 18, 2022	30754

Table 9 Conservation of Nature and Wildlife Related Legislation

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Management of Natural Assets, Natural Protected Areas, and State-Owned Lands Located on Environmental Conservation Lands	May 2, 2013	28635
Law on Conservation of Cultural and Natural Assets	July 23, 1983	18113
Land Hunting Law	July 11, 2003	25165
Law on Fisheries	April 4, 1971	13799
Regulation on Fisheries	March 10, 1995	22223

Table 10 Other Legislation Related to the Project

Legislation	Official Gazette Date	Official Gazette Number
Regulation on the Implementation of the Law Concerning Private Security Services	October 7, 2004	25606
Use of the Right to Petition Law No: 3071	November 10, 1984	18571
Regulation on Subcontractors	September 27, 2008	27010
Building Earthquake Regulation	March 18, 2018	30364
Regulation on Structures to be built in Natural Disaster Areas	July 14, 2007	26582
Regulation on the Protection of Buildings from Fire	December 19, 2007	26735

2.3 The Turkish Regulation on Environmental Impact Assessment

Under Article 10, Environmental Law sets out the general scope of the Environmental Impact Assessment (EIA) procedure in Türkiye, indicating that institutions, agencies and establishments that lead to environmental problems as a result of their planned activities are obliged to prepare EIA report or PIF. Based on this legal framework, the Regulation on Environmental Impact Assessment (henceforth "EIA Regulation") was put into force for the first time after being published in the Official Gazette numbered 21489 and dated on February 7th, 1993. Since then, there had been several amendments in the first regulation and new EIA regulations were published in 2013 and 2014 repealing the former regulations in force. The latest EIA Regulation has recently been published in the Official Gazette dated July 29th, 2022 and numbered 31907, which repealed the 2014 EIA Regulation.

The key relevant steps of the Turkish EIA procedure briefly presented below in the order they are prescribed to occur.

2.3.1 Screening

The EIA Regulation classifies projects into two categories:

Annex-I projects: These are projects that have significant potential impacts and require an EIA study. Annex I of the EIA Regulation lists these project types, so project proponents are expected to start the EIA procedure without any other screening process.

Annex-II projects: Annex II of the EIA regulation covers the projects that may or may not have significant effects on the environment. Proponents of Annex II projects are required to submit a Project Information File (PIF) to the Ministry of Environment Urbanization and Climate Change (MoEUCC). The PIF is prepared following the General Format for PIF provided in Annex IV of the EIA Regulation and contains information on: (i) project characteristics; (ii) environmental characteristics of the project site and impact area; (iii) environmental impacts of the project, identification of priority impacts, and measures to be taken during construction and operation phases of the project; (iv) cumulative impact assessment; and (v) environmental and social action plan[8]. A non-technical summary of the above items is also to be added to the PIF. The PIF is submitted to the MoEUCC for review and evaluation. MoEUCC gives its "EIA is Necessary" or "EIA is not necessary" decision

[8] Including the "cumulative impact assessment" and "environmental and social action plan" sections to the PIFs has become obligatory with the latest EIA Regulation (dated July 29th, 2022)

regarding the project. The decision of the MoEUCC is communicated to public by the relevant Provincial Directorate using appropriate means (i.e. announcement boards, internet).

From the aspects of the Project, the Table 11 below lists sub-project types that may be considered for funding under the Project and their category as per to the national EIA Regulation

Table 11 General Sub-Project Types and Their Categorization as per to the national EIA Regulation

Possible Sub-Project Types	Annex I	Annex II
Stormwater Network	N/A (national EIA regulation is not applicable to stormwater network projects)	N/A (national EIA regulation is not applicable to stormwater network projects)
Water Network	N/A (national EIA regulation is not applicable to water network projects)	N/A (national EIA regulation is not applicable to water network projects)
Sewerage Network	N/A (national EIA regulation is not applicable to sewerage network projects)	N/A (national EIA regulation is not applicable to sewerage network projects)
Wastewater Treatment Plants and Discharge Systems	WWTPs with a capacity more than 50,000 m3/day flow (including expansion of an existing WWTP over the mentioned capacity).	WWTP s with a capacity more than 30,000 and less than 50,000 m^3/day flow. Deep sea discharge systems
Transportation*	Highways and state highways	Provincial roads and ring roads (excluding Neighborhood and Village roads)
Municipal Firefighting and Disaster Response Equipment/Systems	N/A (national EIA regulation is not applicable to acquisition/establishment of these systems projects)	N/A (national EIA regulation is not applicable to acquisition / establishment of these systems projects)

** This includes roads, bridges etc. under responsibility of municipalities.*

2.3.2 Preparation of EIA Application File

For projects that require the preparation of an EIA, the process starts with submitting a brief report (EIA Application File) by the project proponent, which summarizes the characteristics of the Project and the impact area, and the potential environmental impacts and mitigation measures. The EIA Application File is prepared through following the General Format for EIA provided in Annex III of the EIA Regulation and includes: (i) project definition and characteristics; (ii) environmental characteristics of the project site and impact area; (iii) environmental impacts and measures to be taken during construction and operation phases; (iv) cumulative impact assessment; (v) environmental and social action plan, and (vi) public disclosure & participation, and stakeholder engagement plan[9]. A non-technical summary of the above items is also to be added to the EIA Application File.

The MoEUCC and relevant Provincial Directorate are required to inform the public that a project application has been made in a specified locality, that the EIA process has begun and that the public may submit its comments and suggestions to the Provincial Directorate or MoEUCC. The announcement is mainly made through websites of MoEUCC and relevant directorate. Besides a variety of methods can be used, including bulletin boards and loudspeaker announcements.

2.3.3 Public Participation

A formal public participation meeting occurs for projects that are subject to an EIA after the screening / EIA Application File process and prior to scoping. The project proponent organizes a "public participation meeting" chaired by the relevant MoEUCC provincial director in a location that affected local groups can access easily. The invitation to the meeting is published in a national and a local newspaper at least ten days prior to the meeting. There is no requirement that information on the project should be provided to the public in advance, except for the subject matter of the meeting. However, the EIA Regulation specifies that during the meeting, which is chaired by the Director or a member of MoEUCC's provincial directorate, it should be ensured that the public is informed about the project, and its comments and suggestions regarding the project are obtained. The meeting chairperson may request comments in writing too. Minutes of the meeting are kept and submitted to MoEUCC and the Governorate. The Governorate is required to inform the public about the timeframe for submission of public comments and suggestions. Such comments and suggestions are submitted to the EIA commission. The stakeholder engagement plan prepared during the EIA Application File includes relevant methods of gathering information from the public.

Summaries of the consultations will be included on an ongoing basis in the Stakeholder Engagement Plan and as an annex to the ESMF.

[9] Including the "environmental and social action plan" and "stakeholder engagement plan" sections to the EIA Application Files become obligatory with the latest EIA Regulation (dated July 29th, 2022). It is important to note here that the stakeholder engagement plan that shall be prepared within the EIA Application File should include all relevant public participation and consultation methods to be used during whole EIA process. As a matter of course, it should also identify relevant stakeholders. Besides, the stakeholder engagement plan to be prepared within the EIA Application File may be revised during the EIA process in case of a request from the MoEUCC.

2.3.4 Scoping

As per to the opinions and suggestions of the commission members and public, MoEUCC determines the scope of the EIA and the “project specific format”.

2.3.5 Submission and Review of the EIA report

The Project proponent submits the EIA Report based on its determined “project specific format” to the MoEUCC. After a short format review of the MoEUCC, the report is sent to commission members by MoEUCC. Besides, public is informed via websites of MoEUCC and relevant Provincial Directorate regarding the initialization of the review process and regarding their opportunity to provide opinions and suggestions to the draft EIA report. Accordingly, public can provide opinions and suggestions to MoEUCC or to relevant provincial directorate. These opinions and suggestions are also taken into account by the commission.

Accordingly, the commission reviews the draft version of the EIA report. In its review, the commission assesses (i) the adequacy of the EIA report and its annexes; (ii) whether the analyses, evaluations or calculations were adequately substantiated by relevant data and documentation; (iii) whether the potential environmental impacts of the project were evaluated in adequate scope and depth; (iv) whether measures necessary to prevent or mitigate negative environmental impacts have been identified; (v) whether the public’s opinions and suggestions are taken into account / resolved or not.

The final EIA report, which incorporates the commission’s assessments, is then submitted to the MoEUCC for review.

2.3.6 Disclosure and Decision

MoEUCC disclosures the final report submitted to public’s opinions and suggestions for 10 days via MoEUCC’s and/or relevant provincial directorate’s websites. MoEUCC takes these opinions and suggestions into account during the decision-making process. MoEUCC may ask correction of the deficiencies, may request additional studies or additional review from the commission. Thereafter the MoEUCC gives the "EIA Positive" or "EIA Negative" decision for the project within ten working days, taking into account the work of the Commission and the opinions of the public, and notifies the Commission members and project owner of this decision. The "EIA Positive" or "EIA Negative" decision given for the project is announced to the public by the Ministry and the relevant Provincial Directorate via pending announcements and the website.

2.3.7 Monitoring and Inspection

According to the EIA Regulation, MoEUCC monitors and inspects projects that were assessed either “EIA is not necessary” or “to have a positive EIA” based on provisions specified in the PIF or the EIA, respectively. Furthermore, the project proponent is obliged to submit project progress reports to MoEUCC only for Annex 1 projects. In case MoEUCC determines non-compliance, the Governorate issues a warning. If after the granted time compliance is still not achieved the Governorate may suspend the operation of the facility in question.

2.4 National Laws on Social Impacts

Although the Turkish EIA Regulation does not entirely meet the requirements of international standards in terms of social impacts and stakeholder engagement, there are some legal arrangements for managing various social impacts. In this respect, the following are identified to be a non-exhaustive list of social legal framework applicable for this project:

- Labor Law (No. 4857), published in the Official Gazette No. 25134 dated 10 June 2003
- Law on Occupational Health and Safety (No. 6331), published in the Official Gazette No. 28339 dated 30 June 2012
- Regulation on Contractors and Sub-contractors, published in the Official Gazette No. 27010 dated 27 September 2008
- Laws on Right to Access to Information (No. 4982), published in the Official Gazette No 25269 dated 24 October 2003
- Regulation on the Environmental Impact Assessment (EIA) published in the official Gazette No. 29186 dated 2525 November 20142014.

In terms of land acquisition and involuntary resettlement, the relevant legal arrangements of Türkiye are summarized below:

- Expropriation Law, published in the Official Gazette No. 18215 dated 8 November 1983
- Amendment on Expropriation Law, published in the Official Gazette No. 24393 dated 5 May 2001.
- Settlement Law, published in the Official Gazette No. 26301 dated 26 September 2006

2.4.1 National Laws on Labor and Working Conditions

Occupational Health and Safety

In recent years, Türkiye has undergone a reform to improve its national OHS system through adapting a set of international and regional standards into its national level requirements for the prevention occupational risks as defined in the ILO Occupational Safety and Health Convention, 1981 (No. 155). The convention, along with the Occupational Health Services Convention, 1985 (No. 161) were both ratified by Türkiye in 2005 and Türkiye is also party to the Labor Inspection Convention, 1945 (No. 81) since 1951. In 2014, Türkiye ratified the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).

During 2012, a stand-alone Law on OHS (No. 6331) was put into force (20 June 2012). The OHS Law governs workplace environments and industries (both public and private) as well as virtually all classes of employees including part-time workers, interns, and apprentices. The legislation is comprehensive and is generally applicable across all sectors and many industries.

Labor and Working Conditions

Türkiye is party to a multitude of ILO conventions, including but not limited to conventions on equal treatment of employees, gender equality, child labor, forced labor, OHS, right of association and minimum wage. Accordingly, the current Turkish Labor Law (No.4857) is to large extent consistent with ESS2 requirements.

There are also secondary legislations that may apply to the project which include regulations on annual leave, working hours, overtime work, minimum wage, female and child employees. The Ministry of Labor and Social Security has published various communiques and circulars that set ground for the implementation of the Labor Law which may also be referenced during project implementation.

2.4.2 National Laws on Land Acquisition

In the scope of the Turkish legal framework, land acquisition/expropriation related issues are handled through the Expropriation Law No: 2942 (amended by Law No: 4650 in 2001).

Compensation for the subject property/assets to be expropriated is determined according to procedures and principles outlined in Articles 8, 10 and 11 of the Law. Article 27 authorizes the expropriation agency to confiscate the assets required by the project earlier than the time needed in normal expropriation procedure. This process does not prevent challenges of the property owners against the determined valuation.

2.5 International Agreements and Conventions

Turkish national policies on protection of environment, cultural heritage, conservation of biological resources, labor and OHS has been formulated on the basis of relevant international agreements signed or ratified by Türkiye. Relevant environmental, biodiversity related, cultural heritage related, and OHS and international labor agreements and conventions ratified by Türkiye are listed below:

- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (1994)
- Bern Convention on Protection of Europe's Wildlife and Living Environment (1982)
- Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) (1996)
- Convention on Long-range Transboundary Air Pollution (1983)
- European Convention on the Protection of the Archaeological Heritage (1969)
- European Landscape Convention (2003)
- International Convention for the Protection of Birds (1950)
- Montreal Protocol on Substances that Deplete the Ozone Layer (1989)
- Paris Convention on the Protection of the World Cultural and Natural Heritage (1975)
- RAMSAR Convention on Wetlands of International Importance Especially as Wildfowl Habitat (1994)
- Stockholm Convention on Persistent Organic Pollutants (2004)
- United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (1996)
- United Nations (UN) Framework Convention on Climate Change (Kyoto Protocol) (1997)
- UN (Rio) Convention on Biological Diversity (1992)
- Vienna Convention or the Protection of the Ozone Layer(1988)
- ILO Occupational Safety and Health Convention (1981)
- Occupational Health Services Convention (1985)

- Labor Inspection Convention (1947)
- Promotional Framework for Occupational Safety and Health Convention (2006)
- Worst Forms of Child Labor Convention (1999)

2.6 World Bank's Environmental and Social Standards

The WB Environmental and Social Standards (ESSs) set the requirements to be met by Borrowers with respect to the identification, evaluation and mitigation of social and environmental risks and impacts associated with projects supported by the Bank through Investment Project Financing. Nine (as ESS7 on Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities is not relevant) out of the ten ESSs establish the standards that the Borrower and the project shall meet through the project life cycle, as follows:

- ESS1: Assessment and Management of Environmental and Social Risks and Impacts
- ESS2: Labor and Working Conditions
- ESS3: Resource Efficiency and Pollution Prevention and Management
- ESS4: Community Health and Safety
- ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
- ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources
- ESS8: Cultural Heritage
- ESS9: Financial Intermediaries
- ESS10: Stakeholder Engagement and Information Disclosure

In accordance with the ESSs, the relevant World Bank Group's Environment, Health and Safety Guidelines (WBG EHSGs) should be applied to the project. Therefore, this project will apply the relevant requirements of the EHSGs. In cases where the Turkish requirements differ from the levels and measures presented in the EHSGs, the more stringent one will be applied in the project specifications.

The applicable EHSGs the Project are including but not limited to as follows:

- WBG General EHSGs;
- WBG EHSGs for Water and Sanitation; and
- WBG EHSGs for Toll Roads.

Additionally, the WB Note on "COVID-19 considerations in construction/civil works projects" will also be applied to the project to address health and safety risks related to COVID 19 at the project level.

2.6.1 ESS1 Assessment and Management of Environmental and Social Risks and Impacts

The WB requires assessment, management and monitoring of environmental and social risks and impacts of projects supported by the Bank to ensure that projects are environmentally and socially sound and sustainable. The objectives of ESS1 are; (i) to identify, evaluate and manage the environmental and social risks and impacts of the project in a manner consistent with ESSs;

(ii) to adopt mitigation hierarchy approach to (a) anticipate and avoid risks and impacts, (b) where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels, (c) once risks and impacts have been minimized or reduced, mitigate, and (d) where significant residual impacts remain, compensate for or offset them, where technically and financially feasible, (iii) to adopt differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities resulting from the project, (iv) to utilize national environmental and social institutions, systems, laws, regulations and procedures in the assessment, development and implementation of projects whenever appropriate, and (v) to promote improved environmental and social performance in ways which recognize and enhance Borrower capacity.

As per requirements of ESS1, the Borrower will: (i) conduct an environmental and social assessment of the proposed sub-projects; (ii) undertake stakeholder engagement and disclose appropriate information in accordance with ESS10; (iii) develop an ESCP, and implement all measures and actions set out in the legal arrangement including the ESCP; and (iv) conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.

2.6.2 ESS2 Labor and Working Conditions

The objectives of ESS2 are to: (i) promote safety and health at work; (ii) promote the fair treatment, non-discrimination and equal opportunity of project workers; (iii) protect workers including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with ESS2) and migrant workers, contracted workers, community workers and primary supply workers, as appropriate; (iv) prevent the use of all forms of forced labor and child labor (v) support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law; and (vi) provide project workers with accessible means to raise workplace concerns. The applicability and scope of application of ESS2 depends on the environmental and social assessment described in ESS1 and the type of employment relationship between the Borrower and the project workers.

ESS2 requirements cover the development and implementation of written labor management procedures which will be applicable to the project. These procedures will set out the way in which project workers will be managed, in accordance with the requirements of national law and this ESS, and will include the description of the following; (i) working conditions and management of worker relationships (such as development and implementation of labor management procedures applicable to the project) including terms and conditions of employment, non-discrimination and equal opportunity, and worker's organizations; (ii) protecting the work force including defining a minimum age for workers, prohibition of child labor and forced labor; (iii) grievance mechanism (for the workers); (iv) occupational health and safety; (v) contracted workers; (vi) community workers; and (vii) primary supply workers.

2.6.3 ESS3 Resource Efficiency and Pollution Prevention and Management

The objectives of ESS3 is to: (i) promote the sustainable use of resources, including energy, water and raw materials; (ii) avoid or minimize adverse impacts on human health and the

environment by avoiding minimizing pollution from project activities; (iii) avoid or minimize project related emissions of short and long-lived climate pollutants; (iv) avoid or minimize generation of hazardous and non-hazardous waste; and (v) minimize and manage the risks and impacts associated with pesticide use. The applicability of ESS3 depends on the environmental and social assessment described in ESS1.

ESS3 requirements cover: (i) resource efficiency including energy, water and raw material use; and (ii) pollution prevention and management including management of air pollution, hazardous and non-hazardous wastes, chemicals and hazardous materials, and pesticides.

2.6.4 ESS4 Community Health and Safety

ESS4 addresses potential health, safety, and security risks and impacts on project-affected communities and corresponding responsibility of Borrowers to avoid or minimize these, with particular attention to vulnerable people. The objectives of ESS4 is to: (i) anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances; (ii) promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams; (iii) avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials; (iv) have in place effective measures to address emergency events; and (v) ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities. The applicability of ESS4 depends on the environmental and social assessment described in ESS1.

ESS4 requirements cover: (i) community health and safety including infrastructure and equipment design and safety (including safety of dams), safety of services, traffic and road safety, ecosystem services, community exposure to health issues, SEA/SH risks to the community, management and safety of hazardous materials, and emergency preparedness and response; and (ii) security personnel.

2.6.5 ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

The objectives of ESS5 is to: (i) avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring project design alternatives; (ii) avoid forced eviction; (iii) mitigate unavoidable adverse social and economic impacts from land acquisition or restrictions on land use by: (a) providing timely compensation for loss of assets at replacement costs and (b) assisting displaced persons in their efforts to improve, or at least restore, their livelihoods and living standards, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher; (iv) improve living conditions of poor or vulnerable persons who are physically displaced, through provision of adequate housing, access to services and facilities, and security of tenure; (v) conceive and execute resettlement activities as sustainable development programs, providing sufficient investment resources to enable displaced persons to benefit directly from the project, as the nature of the project may warrant; and (vi) ensure that resettlement activities are planned and implemented with appropriate disclosure of information, meaningful consultation, and the informed participation of those affected. The applicability of ESS5 depends on the environmental and social assessment described in ESS1, and applies to permanent or temporary physical and

economic displacement resulting from the types of land acquisition or restrictions on land use undertaken or imposed in connection with project implementation described in ESS5.

ESS5 requirements cover the preparation and implementation of a resettlement framework or plan which will set ground for: (i) general requirements such as eligibility classification, project design, compensation and benefits for affected persons, community engagement, grievance mechanism, planning and implementation; (ii) physical and economic displacement; (iii) collaboration with other responsible agencies or subnational jurisdictions; and (iv) technical and financial assistance.

2.6.6 ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

The objectives of ESS6 are to: (i) protect and conserve biodiversity and habitats; (ii) apply the mitigation hierarchy and the precautionary approach in the design and implementation of projects that could have an impact on biodiversity; (iii) promote the sustainable management of living natural resources; and (iv) support livelihoods of local communities including Indigenous Peoples, through the adoption of practices that integrate conservation needs and development priorities. The applicability of ESS6 depends on the environmental and social assessment described in ESS1.

ESS6 requirements cover: (i) general requirements including assessment of risks and impacts, conservation of biodiversity and habitats (modified, natural, and critical habitats), legally protected and internationally recognized areas of high biodiversity value, invasive alien species, and sustainable management of living natural resources; and (ii) primary suppliers

2.6.7 ESS8 Cultural Heritage

ESS8 sets out general provisions on risks and impacts to cultural heritage from project activities. The objectives of ESS8 is to: (i) protect cultural heritage from the adverse impacts of project activities and support its preservation; (ii) address cultural heritage as an integral aspect of sustainable development; (iii) promote meaningful consultation with stakeholders regarding cultural heritage; and (iv) promote the equitable sharing of benefits from the use of cultural heritage. The applicability of ESS8 depends on the environmental and social assessment described in ESS1.

ESS8 requirements cover: (i) general requirements, (ii) stakeholder consultation and identification of cultural heritage including confidentiality and stakeholders' access; (iii) legally protected cultural heritage areas; (iv) provisions for specific types of cultural heritage including archaeological sites and material, built heritage, natural features with cultural significance, movable cultural heritage and, under certain circumstances, intangible cultural heritage; and (v) commercial use of cultural heritage.

2.6.8 ESS9 Financial Intermediaries

Financial Intermediaries (FIs) are required to monitor and manage environmental and social risks and impacts of the projects they finance. The objectives of ESS9 is to: (i) set out how the FI will assess and manage environmental and social risks and impacts associated with the sub-projects it finances; (ii) promote good environmental and social management practices in the

sub-projects the FI finances; and (iii) promote good environmental and sound human resources management within the FI. ESS9 applies to FIs that receive financial support from the Bank including public and private financial services providers.

ESS9 requirements cover: (i) environmental and social management system including environmental and social policy, environmental and social procedures, organizational capacity and competency, and monitoring and reporting; and (ii) stakeholder engagement.

2.6.9 ESS10 Stakeholder Engagement and Information Disclosure

Open and transparent engagement between the Borrower and project stakeholders is one of the essential elements of good international practice and effective stakeholder engagement improves the environmental and social sustainability of projects. The objectives of ESS10 are to: (i) establish a systematic approach to stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties; (ii) assess the level of stakeholder interest and support for the project and to enable stakeholders' views to be taken into account in project design and environmental and social performance; (iii) promote and provide means for effective and inclusive engagement with project-affected parties throughout the project life cycle on issues that could potentially affect them; (iv) ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format; and (v) provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances. ESS10 applies to all projects supported by the Bank through Investment Project Financing.

ESS10 requirements cover the development of a stakeholder engagement framework and/or plan that will define the following; (i) engagement during project preparation including stakeholder identification and analysis, stakeholder engagement plan, information disclosure, and meaningful consultation; (ii) engagement during project implementation and external reporting; (iii) grievance mechanism; and (iv) organizational capacity and commitment.

2.6.10 World Bank Safeguards Policies

With the World Bank adoption of the ESF in 2018, the environmental and social safeguard policies are no longer apply with the exception of a few policies. One of them is OP 7.50 - Projects on International Waterways. It describes the types of waterways and projects that the policy applies, and the requirements and conditions of financing projects on international waterways. With regard to OP 7.50, ILBANK is responsible for ensuring that the sub-projects financed are located within and dependent on national waterways only. The waterways identified as NOT being international waterway (do not trigger OP 7.50) in Türkiye include the following: Susurluk, North Aegean, Gediz, Kucuk Menderes, Buyuk Menderes, Western Mediterranean, Antalya, Sakarya, Western Black Sea, Yesilirmak, Kizilirmak, Konya Kapali, Eastern Mediterranean, Seyhan, Ceyhan, Eastern Black Sea, Burdur, Afyon, Orta Anadolu and Van.

2.7 Key Differences between the Turkish EIA Regulation and the WB ESSs

The Turkish EIA procedures are, with some exceptions, in line with the WB's ESSs. The primary exceptions are in project categorization, scope of environmental and social assessment, and public consultation. In cases where the Turkish legislation differ from the ESSs, the more stringent one will be applied to the project implementation.

Project categorization

According to the World Bank's E&S Policy, projects (including projects involving FIs) are classified into ***High Risk, Substantial Risk, Moderate Risk,*** or ***Low Risk*** category, taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the project; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other areas of risks that may be relevant to the delivery of E&S mitigation measures and outcomes (see Annex 1 for details).

There are no clear-cut border values distinguishing the classification of the projects or, unlike the Turkish EIA Regulation (where projects are classified into two categories as Annex I and Annex II projects according to the capacity of the facilities), projects are screened on a case by case basis with due consideration of the environmental and social risk classification of the WB and all environmental and social impacts are assessed according to ESSs.

Scope of Environmental and Social Assessment

The scope and type of E&S assessment required as per ESS1 varies proportionate to the potential risks and impacts of the project and, in an integrated way, all relevant direct, indirect and cumulative environmental and social risks and impacts throughout the project life cycle, as per the ESSs 2-10, are assessed.

Indicative outlines of ESIA Report and ESMP are given in Annex 2.

Comparison of the indicative outline required by the WB for ESIA with the general format of a Turkish EIA indicates the following key differences:

- insufficiency of the non-technical summary (technical level of information in the non-technical summary required in the Turkish EIA may not meet WB requirements) and lack of information on the legal and institutional framework in the Turkish EIA;
- possible discrepancies with regard to the level at which the project's environmental and social impacts, its alternatives, and identification of the mitigation measures for the impacts are discussed (such as lack of discussions on residual impacts, limited discussion on indirect and induced impacts, and lack of impact significance related evaluation);
- social impact assessment is not completely integrated to the Turkish EIA and this results in the absence of proper social baseline, identification and assessment of the project induced social impacts including, impacts on disadvantaged and vulnerable groups and gender related issues;
- there are limited requirement in the Turkish EIA to cover risks and impacts related to (i) community health and safety; (ii) occupational health and safety; and (iii) labor and working conditions;

- limited emphasis on the associated facilities in the Turkish EIA.

Nevertheless, the project specific format for Turkish EIA may require more details under some of these headings than indicated in the general format. Consequently, a case by case review of the Turkish EIAs is necessary to identify gaps with WB requirements.

Besides, as per to the new provisions of the recently published EIA Regulation (dated July 29th, 2022) which repealed the former one (dated November 25th, 2014), some of the previous insufficiencies are resolved. These can generally be listed as follows:

- Preparation of a "stakeholder engagement plan" is now an obligation in the Turkish EIA process
- A whole new section, namely "Cumulative Environmental Impact Assessment" is included to the general format of the Turkish EIA Report.
- Additional sub-sections are included which expand scope of impact assessment and mitigation identification regarding climate change and greenhouse gas emissions
- An "Environmental and Social Action Plan" is included as a whole new section which contains "Environmental Monitoring Plan" and "Sustainability Plan". The Sustainability Plan includes sub-plans, such as, Zero Waste Plan, Traffic Management Plan, Greenhouse Gas Reduction Plan, and Environmental and Social Management Plan.

Public consultation and disclosure

Pursuant to ESS1, stakeholder engagement is an integral part of E&S assessment and should be conducted in accordance with ESS10. Within this scope, the Borrowers should identify the different stakeholders (project-affected parties and other interested parties including disadvantaged or vulnerable) and develop and implement SEP. Engagement with stakeholders should take place throughout the project life cycle, commencing such engagement as early as possible in the project development process and in a timeframe that enables meaningful consultations with stakeholders on project design. The nature, scope and frequency of stakeholder engagement will be proportionate to the nature and scale of the project and its potential risks and impacts. The SEP should describe the timing and methods of engagement with stakeholders throughout the life cycle of the project, and also describe the range and timing of information to be communicated to the parties as well as the type of information to be sought from them. The stakeholder engagement should take into account the needs of those consulted including making the information relevant, understandable and accessible whilst ensuring that consultations are undertaken in a culturally appropriate manner. The Borrower should disclose project information to allow stakeholders to understand the risks and impacts of the project, and potential opportunities, in a timeframe that enables meaningful consultations with stakeholders on project design. The Turkish EIA Regulation requires "pre-scoping" public consultation only for projects requiring an EIA, and only requires announcement of the environmental assessment together with the justification. Additionally, preparation of a "stakeholder engagement plan" is now an obligation in the Turkish EIA process and during this process, the project owner is obliged to organize several public participation meetings and to provide information about the project to the relevant stakeholders together with visual materials such as brochures, summary reports, etc. However, ESS 10 does not specify an exact number and method of public consultation and information disclosure but instead the standard requires

meaningful and early engagement and for there to be a continuous stakeholder engagement approach through the life cycle of the project proportionate to the nature, scale and impact magnitude of the project.

2.8 Environmental and Social Risk Classification and Application of ESSs to Sub-projects

2.8.1 Overall Environmental and Social Risk Classification

The Project's overall Environmental and Social (E&S) risk is rated as **Substantial.** The Project is expected to generate positive impacts by increasing disaster and climate risk resilience at the municipal level and incorporating energy-efficient measures and renewable energy solutions (if feasible) in the retrofit and new construction public infrastructure. However, during the implementation phase, there will be environmental risks from demolition, retrofit, and construction activities, which will be implemented across the target municipalities. The potential adverse environmental risks and impacts will include: emissions of dust and vehicle exhausts impacting air quality; noise and vibration causing disturbances; generation of hazardous (including Asbestos-Containing Materials – ACM) and non-hazardous waste; OHS-related risks due to unsafe practices; traffic and road-related risks from increased traffic volume and movement of heavy-duty vehicles; closure of roads and blockades of sidewalks and access to certain public facilities; risks associated with labor influx that may impact community health and safety; and risks of COVID-19 infection.

The Project will not have impacts on Cultural Heritage (CH) – all subprojects that include buildings from CH list or that may impact CH sites will be excluded from project financing.

Although a list of potential investments is available, the locations for all the subprojects have not been determined across all municipalities. Overall, given the types of proposed subprojects (i.e., repair and construction of municipal infrastructures such as bridges, stormwater and wastewater transmission lines), these sub-projects are not expected to produce significant or irreversible adverse effects on human health and/or the environment.

2.8.2 Environmental Risk Classification

The environmental risk is rated as **Substantial,** considering that: (i) the subprojects are more of rehabilitation nature and not located in sensitive areas, (i.e., subproject activities are centered in already urban environments); (ii) the environmental risks and impacts from the activities, although generally are expected to be moderate, mostly temporary, reversible, spatially limited; (iii) mitigation measures can be readily designed and implemented; (iv) while the cumulative impacts due to potentially large volume of debris and solid waste might be substantial, along with associated risks and impacts, the cities have in place approved Solid Waste Management Plans and well-functioning landfills. The substantial environmental risk rating is also assigned due to the clients' lack of experience in implementing the Bank's ESF. Although ILBANK has experience with many Bank-financed projects under both Safeguard Policies and the ESF, the main Implementing Agencies being most municipal and utility PIUs, have little or no prior experience with IBRD-financed projects and will likely not be familiar with the requirements of WB ESF and ESSs.

2.8.3 Social Risk Classification

The Project's social risks are rated as **Substantial**. The Project has mainly positive impacts as it will support structural strengthening and reconstruction of damaged municipal infrastructure. Multiple activities that need to go in parallel requiring diligent community and stakeholder engagement and the implementing agencies' capacity in managing a first-time Bank project increase the complexity of environmental and social risks of the Project.

The Project will support only in-situ reconstruction and retrofitting activities as well as new constructions, however no major resettlement issues or relocation is expected. Component 1 will be mainly supporting project municipalities and three utilities' infrastructure (water network lines, storm, drinking water and wastewater collection networks, bridges and emergency response vehicles and equipment). Project activities may lead to potential economic resettlement and to a limited extent temporary and/or permanent land acquisition impacts as none of the exact designs and locations of the subprojects supported under the Project are not certain yet. In addition, there could be risks associated with labor influx that may impact community health and safety; risks of spreading COVID-19 infection; risks related to SEA/SH; involvement of multi-stakeholders and delicate coordination and engagement needs as well as the additional environmental and social management capacity needed by ILBANK, project municipalities and entities contribute to the Substantial risk rating of the Project.

2.8.4 Application of the ESSs to Sub-projects

Application of the ESSs to sub-projects starts with a screening process: (i) initial E&S risk assessment by the Municipalities/Utilities as part of the sub-projects to be proposed for financing considering both the national legislative framework and World Bank E&S risk classification (ii) Review of the proposed sub-projects by ILBANK's E&S team and defining the risk categories, (iii) ILBANK PMU consults with the World Bank's E&S team for final decision of E&S risk categorization (Substantial, moderate, low) of the sub-projects.

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Procedures for the identification, assessment and management of the environmental and social risks and impacts of subprojects include the following:

- Screening all subprojects against any exclusions in the legal agreement,
- Screening, reviewing and categorizing the subprojects according to their potential environmental and social risks and impacts via the screening tool provided in Annex 1 of this ESMF,
- All E&S documents/instruments for each subproject will be prepared, assessed, and implemented to meet the requirements of the applicable ESSs,
- The measures needed to satisfy the requirements of the above will be set out in the legal agreement between ILBANK and the sub-borrower municipality/utility,
- Monitoring and regularly updating environmental and social status of sub-projects,
- If the risk profile of a subproject increases significantly, applying relevant requirements of the ESSs and documenting these appropriately, and
- Monitoring the environmental and social risk of the sub-project during construction and operation.

The sub-projects will be identified, and preliminary feasibilities/designs will be reviewed. This ESMF will serve as a guideline to policies, procedures and provisions to be integrated into the overall project implementation to ensure that social and environmental issues are addressed at the subproject level. Site-specific issues/impacts will be determined by via the screening process, as described in this ESMF. In addition, ILBANK has prepared a SEP, a RF, and a LMP to include application of the relevant ESSs to ILBANK employees and application to contracted workers.

For all sub-projects, site specific environmental and social assessment (ESA) documents (e.g. ESIAs/ESMPs, RP/Ex-Post Social Audit) will be prepared. It will be required that all site specific environmental and social assessment documents will be finalized and disclosed before the respective bidding processes of each subproject. Municipalities will produce these documents according to the environmental and social risk categorization of the sub-projects. During subproject E&S document preparation, the WBG General EHSGs as well as relevant Industry Sector Guidelines (i.e. Water and Sanitation and Toll Roads where relevant) will be used in addition to the national legislation requirements. The most stringent standards will be applied in project specifications.

Associated facilities[10] will be taken into account in the site-specific E&S assessments, as applicable, as well as cumulative impacts.

ESS2 Labor and Working Conditions

Project workers will include the direct workers, contracted workers and primary supply workers. ILBANK PMU employees are civil servants and direct employees of this project. Contractors to be engaged in civil works will be contracted workers. Primary supply workers will be determined under E&S studies of the sub-projects. The primary suppliers to the sub-projects shall be companies that manufacture transmission and network water pipes, WWTP utilities, pumps and valves, concrete, asphalt, and emergency response equipment / firefighting vehicles in general. These sectors are not known to involve significant risks of child labor and forced labor. If backfilling or reinstatement material is needed, then local quarries also would be considered primary suppliers. Except for the local quarries, it is expected, that the primary suppliers will be large scale national companies.

During project implementation, when bidding for civil works will take place, LMP will be attached to bidding documents. Awarded contractors will then adopt project LMP (including Code of Conduct) and prepare Occupational Health and Safety Plan (OHSP) and C-LMP. Main contractors will be responsible to manage their subcontractors.

The LMP sets out the basic procedures and requirements to be implemented by ILBANK to ensure that ILBANK and its Project Partners and Contractors respect and protect the

[10] "Associated Facilities" means facilities or activities that are not funded as part of the project and, in the judgment of the Bank, are: (a) directly and significantly related to the project; and (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist.

fundamental principles and rights of workers through promoting a decent workplace. This includes:

- fair treatment
- non-discrimination and equal opportunities of workers
- establishing, maintaining and improving a sound worker-management relationship
- compliance with national labor and employment laws; code of conduct
- protecting and promoting the safety and health of workers, especially by promoting safe and healthy working conditions
- preventing the use of forced labor and child labor (as defined by the WB and Turkish legislation)
- Induction training for employees regarding to code of conduct, HSE, and SEA/SH and WB requirements etc.

If accommodations are provided for workers, Contractors will ensure that they are provided good hygiene standards, with fresh water, clean beds, restrooms and showers, clean bedrooms, good illumination, lockers, proper ventilation, safe electrical installation, fire and lightening protection, separate cooking and eating areas. There will be separate facilities to be provided for men and women.

Location and layout of site camps to will be agreed with construction supervisors and risk assessment will be conducted. The IFC/EBRD Guidance Note on Workers' Accommodation: Processes and Standards[11] will be used as a benchmark for acceptable quality of on-site accommodation for contracted workers.

Workers residing at site accommodation will receive training in preventing prevention of infection through contaminated food and / or water and or through vector-borne diseases; and in avoidance of sexually transmitted diseases.

The LMP will help all parties and contractors to ensure they meet the requirements set out in tender documentation for managing employment.

ESS3 Resource Efficiency and Pollution Prevention and Management

Feasibility studies of the sub-projects will be assessed in detail during the project preparation stage to determine the ESS3 aspects of sub-projects. Details regarding possible emissions, wastewater discharges, waste generation etc. from the aspects of pollution will also be reviewed to ensure minimal impact on receiving environment. In addition meeting the requirements of the Turkish legislation's and WBG ESHG's relevant limit values and standards will be mandatory.

[11] International Finance Corporation (IFC) and European Bank for Reconstruction and Development (EBRD) 2009: Workers' Accommodation: Processes and Standards.

Assimilative capacity of receiving environments from the aspects of wastewater, odor, noise, air emissions etc. aspects will be evaluated in detail in the sub-project specific E&S documents.

GHG emissions will arise from the construction works but this will be limited spatially and quantitatively. WWTP projects are also one of the sub-project types, therefore, it should be noted here that more significant GHG can arise from sludge generation from wastewater treatment, however, with proper technologies the GHGs can be managed in the most efficient way. The alternatives for sludge management will be discussed in the subproject specific E&S assessments.

Energy and resource efficient equipment will be preferred during the project design studies.

ESS4 Community Health and Safety

The proposed sub-projects will mostly be located in urban areas. Community access to construction sites will increase the likelihood of adverse community health and safety impacts such as accidents involving community members. Nearby communities and settlements will be informed in a timely manner of the construction activities and their implications prior to any activity. The construction sites for all sub-projects will be surrounded with appropriate fencing for avoiding nearby population's entrance to the project sites. Traffic management plans will be prepared for all the sub-projects and will be integrated into the E&S documents.

Traffic will be an issue due to transportation of required materials of the sub-projects and works during transportation type sub-projects. Therefore, specific measures will be integrated to site specific E&S instruments and preparation and implementation of designated Traffic Management Plans will be a commitment where relevant.

Specific measures related to site integrity against floods, landslides, and earthquakes, will be integrated into the site-specific ESMPs based on the levels of risk assessed. The selection of sites for sub-projects will avoid areas vulnerable to the risks of flooding, landslides, and earthquakes to the extent possible.

As a matter of course, the pollution related impacts, which are discussed in above sub-section, are also valid for community health and safety. Accordingly, the specific assessments and regarding measures for these impacts will consider community health and safety aspects of these impacts; and corresponding management plans; such as Air Quality Management Plans or Noise Management Plans will be prepared with that manner. Besides, Community Health and Safety Plans will also be prepared for each sub-project, which will also generally cover these issues.

The sub-projects will be screened for potential cumulative impact issues, and where needed, cumulative impact assessment will be included in the sub-project specific E&S instruments. The potential adverse impacts of labor influx and SEA/SH risks will also be considered among the social issues in the ESIAs and ESMPs, as per WB requirements.

In addition, precaution plans/procedures including special measures will be prepared in order to prevent any possible project impact related to Covid-19 pandemic and implemented during construction and operation phases of the project. During preparation of these plans and procedures, official announcements of the authorities and Interim Guidance on Covid-19 of

WB[12] will be considered and the plans and procedures will be updated regularly according to the updates of the documents and announcements.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant policies, procedures, and provisions are presented in the RF prepared for the Project, in case of land acquisition / resettlement requirements of the sub-projects. For any subproject requiring land acquisition, where the process has already been completed, Ex-Post Social Audits will be carried out after detailed designs become ready but before construction works start in order to determine any gaps that may exist vis-à-vis ESS 5 in terms of the process and outcomes. For sub-projects that may require alterations in final design, the RF will serve as a guiding document on how to address land-based impacts and compensation measures. Should there be any non-land-based livelihood losses, those impacts will be addressed under the requirements of ESS1 under the sub-project specific ESIA/ESMPs. Relevant land based social impacts associated with the construction and operation phase of each sub-project and corresponding entitlement and mitigation measures is elaborated in the RF prepared by ILBANK. The RF also details the institutional implementation/monitoring arrangements between ILBANK and the borrowing municipalities.

Probability of the temporary and/or permanent land acquisition is low due to nature of the Project. Nevertheless, where land take is inevitable, ILBANK will ensure that borrowing municipalities compensate for the loss at replacement cost, in compliance with Bank standards. While physical displacement will be avoided in all sub-projects, economic displacement is a possibility. The entitlement matrix regarding economic displacement has been formulated in the RF and will be used in the subproject specific RPs and Ex-Post Social Audits, in case of need.

ILBANK and the relevant municipalities are responsible for determining site-specific impacts, yet RPs/Ex-Post Social Audits will be prepared, implemented and monitored by the municipalities, if required. ILBANK will provide training and close support to municipalities during RP/Ex-Post Social Audit preparation and will supervise the implementation of RPs. Every sub-project specific RP and Ex-Post Social Audit prepared by Municipalities will be reviewed by ILBANK and sent to the World Bank for no-objection until the WB and ILBANK agree that prior review is no longer required in some or all circumstances. On the other hand, as mentioned before, no major resettlement or relocation issues, and, limited extent of temporary and/or permanent land acquisition are expected, due to the general scope of the Project.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Sub-project sites will be screened to determine whether they could have adverse impacts on any areas of Natural Habitat (NH). If so, the site-specific E&S assessment will assess the biodiversity and ecological significance of the potential area of impact (terrestrial and aquatic), including determining whether any parts are likely to meet the criteria for Critical Habitat (CH).

[12] World Bank, 2020, ESF/Safeguards Interim Note: Covid-19 Considerations in Construction/Civil Works Projects

The site-specific E&S Assessment will include a survey of flora and fauna species, habitats and ecological systems and services, and will analyze the nature and extent of the sub-project's potential adverse impacts and will indicate whether a more detailed Critical Habitat Assessment and/or Biodiversity Management Plan are required. On the other hand, it should be noted here that, as the sites of the possible sub-projects under Component 1 will most likely be in urban areas, possibility of the abovementioned conditions is low. Any sub-projects that would have adverse impacts on Critical Natural Habitats or on species or habitats of high conservation importance (e.g. as indicated in a global, regional or national IUCN Red List, designation as a national Protected Area, a Key Biodiversity Area, KBA, or Important Bird Area, IBA) will not be eligible for financing under the project. Other sub-projects that affect natural or modified habitats can be financed if appropriate mitigation measures to minimize potential adverse impacts on biodiversity, ecological systems and/or ecosystem services are included in the site-specific ESMPs and Biodiversity Management Plans (BMPs).

ESS8 Cultural Heritage

All possibly proposed sub-projects that may impact on Cultural Heritage sites will be excluded from Project financing. Accordingly, sub-project sites will be assessed in accordance to the presence of any known cultural heritage sites in their footprint. However, there is always a risk of chance finds during excavation works -if needed- of sub-projects. Therefore, E&S documents of the sub-projects that include excavation works will need to include chance find procedures at a minimum, and these should be included in civil works contracts.

ESS9 Financial Intermediaries

The project will be implemented by ILBANK – in its capacity as a Financial Intermediary, and it will transfer the funds received from World Bank to identified sub-projects of targeted municipalities and their affiliated utilities. As an affiliate institution to the MoEUCC, ILBANK is subject to Turkish national laws and regulations. Therefore, it is responsible for the application of various law and regulations including Environment Law, Expropriation Law, Resettlement Law, Labour Law etc. for the sub-projects it finances or signs sub-loan agreements. Credit evaluation process of ILBANK includes technical, economic and financial assessment of subject loans. The environmental and social assessment is mainly based on the permitting and land acquisition requirements in the scope of technical assessment.

Projects that ILBANK finances through international financing institutions such as WB, EIB, and JICA are handled by International Relations Department which utilizes key procedural documents for internationally financed investments. The key procedural documents managing the project's environmental and social screening, review and monitoring procedures for sub-projects are the ESMF and RF which will be implemented throughout the lifetime of the projects. ILBANK signs sub-loan agreements with the municipalities and the ESMF is a part of these agreements. ILBANK ensures that municipalities work in full compliance with the ESMF, and the subproject-specific E&S documents are prepared and implemented in line with the ESF. The ESMF and RF are integrated into the Operational Manuals of the project and also the core elements are referred in the PADs and Loan Agreements. Therefore, ILBANK is fully responsible for the satisfactory implementation of the E&S framework documents. The ESMF and RF additionally require that site-specific E&S documents are prepared for the sub-projects and these become a part of the sub-loan agreements between ILBANK and sub-borrowers.

Through these sub-loan agreements ILBANK and the World Bank manage and monitor the sub-projects in conformity with the World Bank's environmental and social requirements. The ESMF describes the subproject screening criteria according to the World Bank requirements and comparison of World Bank's requirements and standards with respect to national standards. Similar to the ESMF, the RF compares national law and World Bank policy requirements on land acquisition and sets the principles for a best practice land acquisition process. As a rule of thumb, the most stringent standards apply to the projects for all environmental and social standards.

The screening process of sub-projects covers: (i) initial E&S risk assessment by the Municipalities/Utilities as part of the sub-projects to be proposed for financing considering both the national legislative framework and World Bank E&S risk classification; (ii) Review of the sub-projects by ILBANK's E&S team and defining the risk categories (iii) ILBANK PMU consults with the World Bank's E&S team for final decision of risk categorization (Substantial, moderate, low) of the sub-projects. The appropriate ESA documents to be prepared is then decided upon the mutually agreed E&S risks. The WB will provide prior review and approval to substantial risk sub-projects and then provide no-objection for the relevant environmental and social assessment (ESA) documents. The WB will do prior review of the ESA documents of the first five moderate risk subprojects and, after that, ILBANK will be responsible for the review of ESA documents for moderate risk subprojects, and the Bank will do the post review. Low Risk Category sub-projects will not require further ESA following the initial screening.

After site visits and review of E&S documents, ILBANK team will prepare semi-annual progress reports for the WB which also includes environmental and social performance of the related sub-projects.

ILBANK will adopt an Environmental and Social Management System (ESMS) as per the requirements of ESS 9 that covers IFI funded projects no later than 120 days after the Loan Effective Date. Any gaps between the ESF and the existing E&S management criteria of ILBANK are evaluated in detail and the relevant actions for fulfilling the gaps are described in the Environmental and Social Commitment Plan (ESCP). ILBANK will prepare an E&S policy, which needs to be approved by the senior management and disclosed.

ILBANK has prepared Resettlement Framework (RF) which, per ESS 9 on Financial Intermediaries, will meet the requirements of ESS 5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement). The RF has to be reviewed by the World Bank and has to be disclosed and consulted.

Per the requirements of ESS 9, ILBANK is preparing an ESMF which meets the requirements of the World Bank's ESF, including ESS 1 (Assessment and Management of Environmental and Social Risks and Impacts) and any other relevant ESS's. The ESMF has to be reviewed by the World Bank and has to be disclosed and consulted.

Per the requirements of ESS 9 and ESS 2 (Labor and Working Conditions), ILBANK has prepared Labor Management Procedures (LMP). The LMP includes a description of the Grievance Mechanism (GM) for the project workers. The LMP has to be reviewed by the World Bank and has to be disclosed.

Per the requirements of ESS 10 (Stakeholder Engagement and Information Disclosure), a Stakeholder Engagement Plan[13] (SEP) has been prepared and disclosed by ILBANK. The SEP includes a description of the Grievance Mechanism (GM) for the project.

The E&S procedures will meet the requirements of the applicable ESS's as discussed previously. Relevant E&S issues such as gaps, adherence to national laws, relevant E&S requirements should be included in finance Loan Agreement documentation.

The ILBANK's organization structure and the staff capacity have been provided in Section 1. A representative of ILBANK's senior management has been designated to have overall accountability for environmental and social performance of the FI subprojects, for the implementation of ESSs and resources necessary to support such implementation. A staff member of PMU will be designated to be responsible for day-to-day implementation of the ESMS, including the environmental and social procedures. The representative will ensure that adequate resources are available for management of and training in environmental and social issues; and ensure that adequate technical expertise, either in-house or external expert support, is available to carry out due diligence and manage the environmental and social risks of ILBANK's IFI financed subprojects, including providing implementation support as required.

ILBANK will also ensure that the requirements of ESS 9 and ESS 2 are clearly communicated to all relevant personnel, and ensure that relevant personnel have the necessary knowledge and capabilities for managing environmental and social risks in accordance with the ESMS.

ILBANK will monitor the environmental and social performance of the subprojects in a manner proportionate to the risks and impacts of the subprojects, and provide regular progress reports to the FI's senior management. As part of its ESMS, ILBANK will adopt written procedure detailing how performance monitoring and reporting is conducted. Monitoring is proportionate to the environmental and social risks and impacts of ILBANK's projects. It is conducted on a regular basis, and outcomes and identified corrective actions will be documented. ILBANK will ensure corrective actions are implemented for each sub-project.

The ESMS will be reviewed periodically by ILBANK to assess effectiveness, and determine whether changes are needed. The review of the ESMS will evaluate ILBANK's implementation of its own environmental and social policy and how environmental and social procedures have been implemented with respect to subprojects.

ILBANK will submit annual Environmental and Social Reports on the implementation of its ESMS to the World Bank, including its environmental and social procedures, ESS 9 and ESS 2, as well as the environmental and social performance of its portfolio of subprojects. The annual report will include details of how the requirements of this ESS are being met, the nature of the FI subprojects financed through the project, and the overall portfolio risk, profiled by sector.

ILBANK will adopt an external communications mechanism, ensuring that it is known and accessible to stakeholders. Procedures for external communications on environmental and social issues are designed to receive, respond to, and document requests for information or

[13] https://www.ilbank.gov.tr/storage/uploads/pagefiles/p176608_sep_Türkiye_earthquake_floods_wildfires_1659354968.pdf

concerns to allow a timely response. This includes making contact information publicly available and easily accessible (for example, a phone number, website, e-mail address). If a concern is deemed not to be relevant, ILBANK records the reasons for this determination.

ESS 10 Stakeholder Engagement and Information Disclosure

Site specific SEPs will be prepared by sub-borrower municipalities. ILBANK will provide training and support to municipalities on how to prepare the sub-project specific SEPs as soon as sub-projects and relevant municipalities are identified. ILBANK has also prepared a framework Stakeholder Engagement Plan[14] (SEP) as a guidance document for the preparation of sub-project specific SEPs. The SEP will be disclosed with a public disclosure meeting. The site specific SEPs will also be disclosed through public consultation meetings by municipalities at local level with the participation of local stakeholders, including those potentially impacted.

Analysis of stakeholder groups based on Level of Interest and Influence over the Project are summarized in the Table 12 below:

Table 12 Analysis of Stakeholder Groups Based on Level of Interest in and Influence over the Project

Component 1 **Green and Resilient Rehabilitation, Reconstruction and Construction of Municipal Infrastructure and Actions to Strengthen Municipal Resilience**		**Level of Interest**	**Level of Influence**
Stakeholder Group			
Direct Stakeholders	• Communities likely to be affected by the construction works in the scope of component • Workers to be employed for the construction activities • Municipalities • Utilities • Local businesses	High	High
Indirect Stakeholders	• Neighborhood residents • Local community organizations	Medium	Medium
Vulnerable individuals or groups	• Disabled individuals • Elderly individuals • Immigrants, refugees and non-native Turkish speakers	High	High
Other Interested Parties	• NGOs • Media • Public institutions	Medium	Medium
	• Workers to be employed for the construction activities • Local administrators	High	High
Component 2 **Technical Assistance to Support Green, Resilient and Inclusive Cities**		**Level of Interest**	**Impact Level**
Stakeholder Group			
Direct Stakeholders	• Municipalities • Utilities	High	High

[14] https://www.ilbank.gov.tr/storage/uploads/pagefiles/p176608_sep_Türkiye_earthquake_floods_wildfires_1659354968.pdf

Indirect Stakeholders	• ILBANK • Public institutions	Medium	Medium
Component 3 **Project management and operations**		**Level of Interest**	**Impact Level**
Stakeholder Groups			
Direct Stakeholders	• ILBANK	High	High
Indirect Stakeholders	• Ministry of Environment, Urbanization and Climate Change • Municipalities • Utilities	Medium	Medium
Component 4 **Contingent Emergency Response Component**		**Level of Interest**	**Impact Level**
Stakeholder Groups			
Direct Stakeholders	• Communities likely to be affected by the construction works in the scope of component • Workers to be employed for the construction activities • Municipalities • Utilities	High	High
Indirect Stakeholders	• Ministry of Environment, Urbanization and Climate Change o Directorate General of Environmental Impact Assessment, Permit and Inspection o Directorate General of Environmental Management o Directorate General of Infrastructure and Urban Transformation Services o Turkish Environmental Agency o Climate Change Presidency o Turkish State Meteorological Service • Ministry of Interior • Ministry of Agriculture and Forestry o Directorate General of Forestry o Directorate General of Water Management • Disaster and Emergency Management Presidency (AFAD) • Provincial Directorates of Environment, Urbanization and Climate Change • Provincial Disaster and Emergency Directorates • Provincial Directorates of Civil Defense Search and Rescue • General Directorate of State Hydraulic Works • Union of Municipalities of Türkiye • Neighborhood residents	Medium	Medium
Disadvantaged / Vulnerable individuals or groups	• Disabled individuals • Elderly individuals • Immigrants, refugees and non-native Turkish speakers	High	High
Other Interested Parties	• NGOs • Media • Public institutions	Medium	Medium
	• Workers to be employed for the construction activities • Local administrators	High	High

Potential sub-projects will require stakeholder engagement, therefore consultations with project-affected parties are particularly important. Since the Project's E&S risk is rated as Substantial, the capacity of ILBANK's and possible borrowing municipalities' to manage stakeholder engagement needs to be improved considerably during project preparation in order to minimize the risk of community resistance against the municipal investments. The project will employ a rigorous engagement strategy throughout project implementation, in accordance with ESS10. Potential borrower municipalities will assign a social expert in order to manage the communication, information disclosure, grievance mechanism, and consultation activities of the sub-projects.

Vulnerable and disadvantaged groups/individuals (such as disabled individuals, elderly individuals, immigrants, refugees and non-native Turkish speakers etc.) will be identified through the sub-project specific ESIAs/ESMPs, RPs (if needed) and SEPs. Additionally, local NGOs/CSOs, community leaders, and local government representatives residing or working in the project areas will also be considered as stakeholders.

ILBANK has already established a Grievance Mechanism[15] in September 2021 and same mechanism will be in place during the course of the Project. Apart from the ILBANK's Grievance Mechanism, a grievance mechanism will also be established by the municipalities in order to receive, resolve and follow the concerns and complaints of the project affected communities. Municipalities' PIUs and construction contractor will be accessible for the stakeholders and respond to all grievances (complaints, requests, opinions, suggestions) at the earliest convenience. Relevant grievances will be monitored by the ILBANK GM Team.

In addition, the project specific GM will include a channel to receive and address confidential complaints related with Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) with special measures in place. If an employee faces SEA/SH issue s/he can either apply to a higher level superior or directly go to police station, as stipulated in the national referral system of the country for dealing such cases. The content and procedures of the project's GM will also have a reporting line on such cases in regard to SEA/SH issues and will be handled under full confidentiality. Municipality PIU receiving the SEA/SH related grievance should direct this to national referral systems immediately and record that this has been directed, as set out in the GM Procedure of ILBANK. All details of the complainant of the sensitive case will be kept strictly confidential.

World Bank's Safeguard Policy OP/BP 7.50 Projects on International Waterways

ILBANK is responsible for ensuring that the projects financed are located/depend on national waterways only. The waterways identified as NOT an international waterway (OP 7.50 does not apply) in Türkiye are as follows: Susurluk, North Aegean, Gediz, Kucuk Menderes, Buyuk Menderes, Western Mediterranean, Antalya, Sakarya, Western Black Sea, Yesilirmak, Kizilirmak, Konya Kapali, Eastern Mediterranean, Seyhan, Ceyhan, Eastern Black Sea, Burdur, Afyon, Orta Anadolu and Van. Any subproject that may trigger OP 7.50 will not be eligible for Bank financing.

[15] https://www.ilbank.gov.tr/storage/uploads/pagefiles/ilbank_gm_policy_1646748212.pdf

3 ENVIRONMENTAL AND SOCIAL BASELINE

The aim of this project is to support green and resilient disaster reconstruction in municipalities affected by earthquake, floods or wildfires and to strengthen municipal capacity for disaster resilience. The Project will also support rapid response to future disasters through a funded Contingent Emergency Response Component (CERC), however, a standalone ESMF will be prepared for the CERC, and therefore, CERC is not taken into account in this ESMF.

It should be noted here that, municipalities where above objectives' related activities will be performed are not certain yet at the time of preparation of this ESMF. On the other hand, there is a general definition and understanding regarding Project Municipalities; based on both eligibility and nature of the Project. Within that scope, Project Municipalities are, collectively, (i) the municipalities affected by the earthquakes in Aegean and Eastern Anatolia regions in 2020, (ii) the municipalities affected by the series of flood disasters in Aegean, Black Sea and Marmara Regions in 2020 and 2021, and (iii) the municipalities affected by wildfires in Mediterranean, Marmara, Central Anatolia and Aegean Regions in July and August 2021, all determined based on information from the Ministry of Interior's Disaster and Emergency Management Presidency and approved by the Borrower and Bank as eligible Project Municipalities for the purposes of the Project, with the understanding that all selections of Project Municipalities shall be conditioned upon: (a) the eligibility of the subprojects proposed by the identified municipalities, and so approved by the Borrower and the Bank; and (b) the acceptance by the identified municipalities of the terms and conditions of the Sub loans for the approved Subprojects; "Project Municipality" means one such municipality.

The municipalities/utilities of Antalya, Düzce, İzmir, Kastamonu, Malatya, Muğla, Rize, Sinop, and Tokat have requested urgent need for assistance for construction works as well as the purchase of vehicles, equipment etc. The environmental, social and economic baseline of those nine provinces is provided in this section.

There will only be purchase of goods (vehicles, equipment etc., for fire services) for the rest of the municipalities/utilities (Adana, Balıkesir, Bursa, Elazığ, Hatay, Konya, Samsun, Trabzon, and Zonguldak). As there will not be any environmental and social risks/impacts associated with the purchase of goods, the baseline information is not provided for those provinces within this ESMF.

The final list of participant municipalities and utilities will be selected based on technical analysis of proposed subprojects as well as creditworthiness of local authorities.

3.1 General Information about Türkiye

Population

The population residing in Türkiye increased by 599 thousand 280 people compared to the 2021 and reached to 85 million 279 thousand 553 people as of 31 December 2022. Male population was 42 million 704 thousand 112 people and female population was 42 million 575 thousand 441 people. While 50.1% of the total population were males, 49.9% of the total population were females. According to the results of Address Based Population Registration System (ABPRS),

foreign population[16] residing in Türkiye increased by 31 thousand 800 people and became 1 million 823 thousand 836 people. 49.5% of this population were males and 50.5% of this population were females.

Annual population growth rate decreased to 7.1 per thousand in 2022 from 12.7 per thousand in 2021.

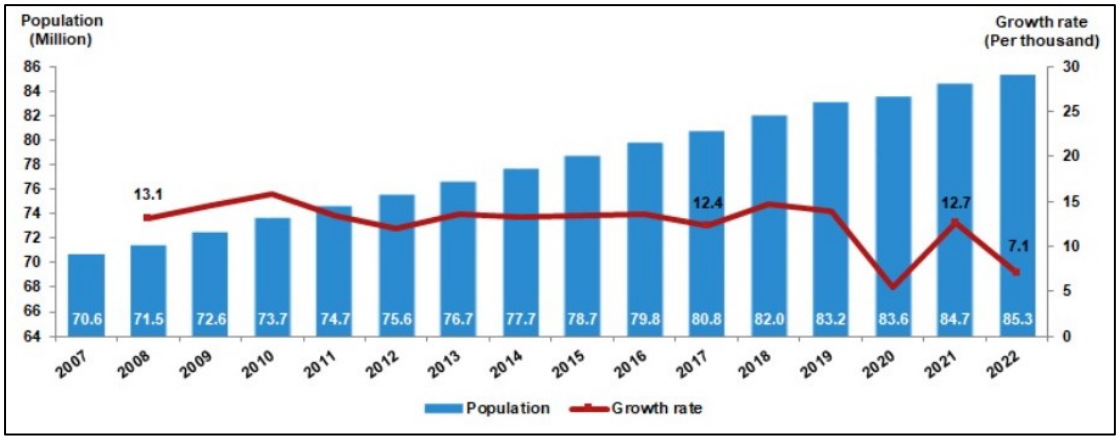


Figure 2 Annual Population Growth Rate

Population pyramids are the graphs that show the changes in the age-sex structure of population. When the population pyramids of Türkiye were compared for the years 2007 and 2022, it was seen that the elderly population and median age increased due to the decline in fertility and mortality rates.

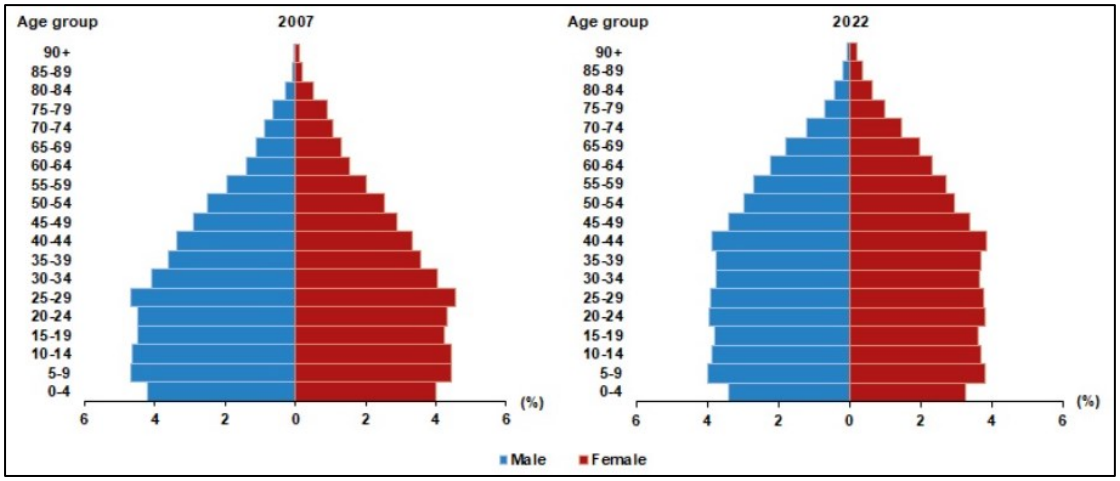


Figure 3 Age-Sex Structure

[16] Foreign population covers individuals who are holding a valid residence/work permit at the reference day and individuals who have a valid address declaration at the reference day while holding an identity document equivalent to residence permit such as international protection identity document and the individuals who have already renounced his/her Turkish Republic citizenship and who have a valid address declaration at the reference day. In addition to Syrians under temporary protection, foreigners holding visas or residence permits shorter than 3 months with the purpose of training, tourism, scientific research, etc. are not covered.

The proportion of the working age population aged 15-64 increased from 66.5% in 2007 to 68.1% in 2022. On the other hand, the proportion of child population aged 0-14 decreased from 26.4% to 22%, and the proportion of population aged 65 and over increased from 7.1% to 9.9%.

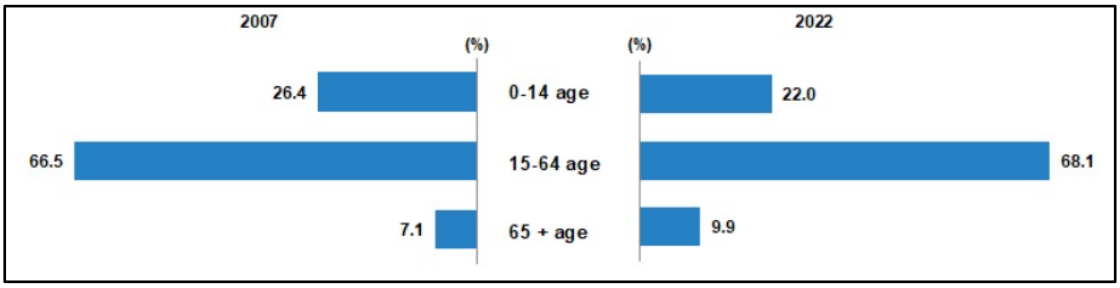


Figure 4 Working Age Population

Employment

The number of unemployed persons aged 15 years old and over decreased by 337 thousand persons to 3 million 582 thousand persons in 2022 compared to the 2021. The unemployment rate decreased by 1.6 percentage points to 10.4%. It was estimated at 8.9% for men and 13.4% for women.

Number of employed persons aged 15 years old and over realized as 30 million 752 thousand persons with 1 million 955 thousand persons increase and employment rate occurred as 47.5% with 2.3 percentage point increase in 2022 compared to the previous year. This rate was estimated at 65.0% for men and 30.4% for women.

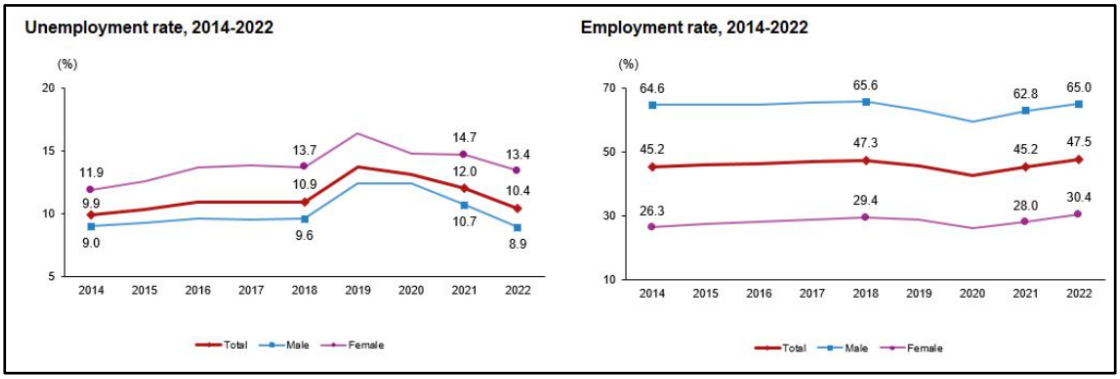


Figure 5 Unemployment and Employment Rate (2014-2022)

Labour force realized as 34 million 334 thousand persons with 1 million 618 thousand persons increase and labour force participation rate realized as 53.1% with 1.7 percentage point increase in 2022 compared to the 2021. The labour force participation rate was estimated 71.4% for men and 35.1% for women.

In 2022, 15.8% of total employment was employed in agriculture, 21.7% was employed in industry, 6.0% was employed in construction and 56.5% was employed in services sector. While the share of employed in industry realized as 0.4 percentage point increase and the share of services realized as 1.2 percentage point increase, the share of agriculture realized with 1.4

percentage point decrease and construction realized with 0.2 percentage point decrease compared to the 2021.

Van, Muş, Bitlis and Hakkari region had the highest unemployment rate with 19.2% and Kastamonu, Çankırı and Sinop region had the lowest unemployment rate with 6.2%.

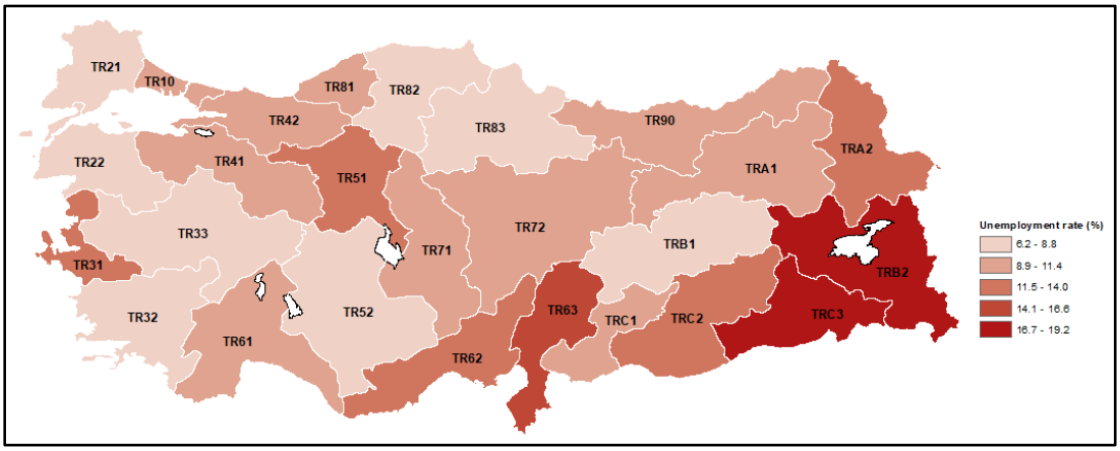


Figure 6 Unemployment Rate (%)

Tekirdağ, Edirne and Kırklareli region had the highest employment rate with 54.1%. Mardin, Batman, Şırnak and Siirt region had the lowest employment rate with 33.8%.

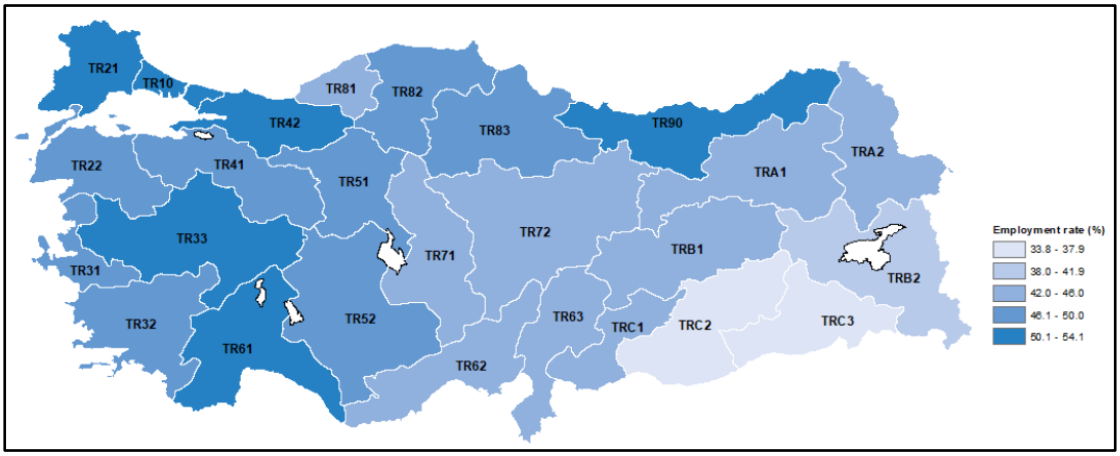


Figure 7 Employment Rate (%)

Tekirdağ, Edirne and Kırklareli region had the highest labour force participation rate with 58.7%. Mardin, Batman, Şırnak and Siirt region had the lowest labour force participation rate with 41.5%.

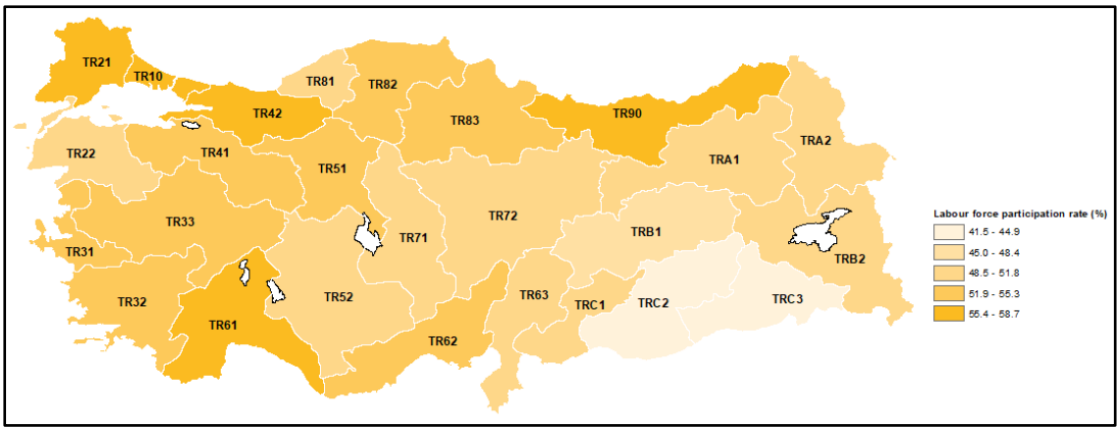


Figure 8 Labour Force Participation Rate (%)

Migration

In Türkiye, the proportion of population migrated across provinces, which was 3.18% in the 2007-2008 period, followed a fluctuating course over the years and became 3.28% in 2021. In other words, in 2021, 2 million 777 thousand 797 people migrated across provinces in Türkiye. 47.5% of this population consisted of males while 52.5% were females.

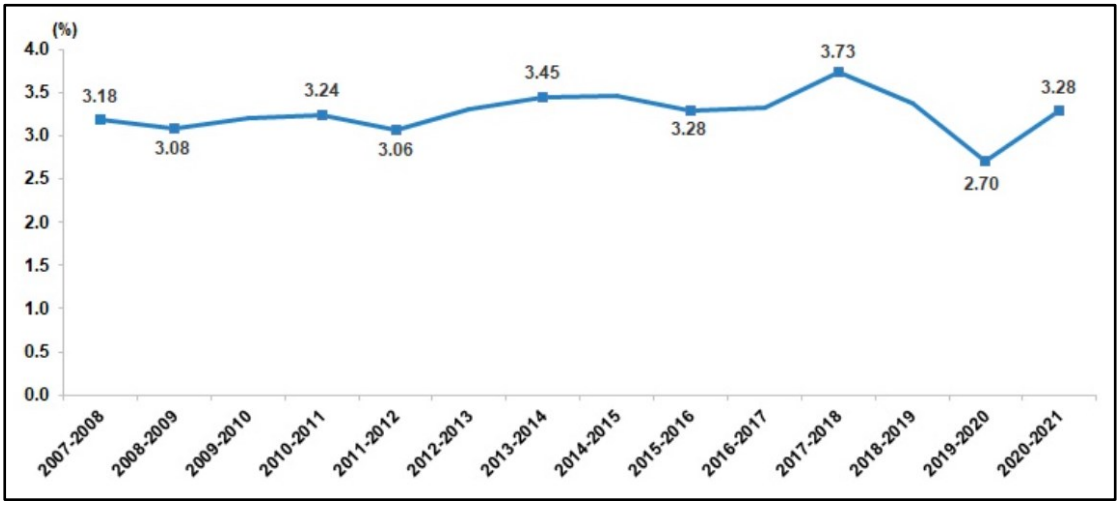


Figure 9 Proportion of population migrated across provinces, 2007-2021

When the population migrated across provinces in Türkiye was examined, İstanbul was the province having the highest provincial in-migration with 385 thousand 328 people. İstanbul was followed by Ankara with 197 thousand 702 people and İzmir with 131 thousand 394 people, respectively. The provinces with the lowest provincial in-migration were Ardahan with 4 thousand 750 people, Tunceli with 7 thousand 54 people and Kilis with 7 thousand 474 people, respectively.

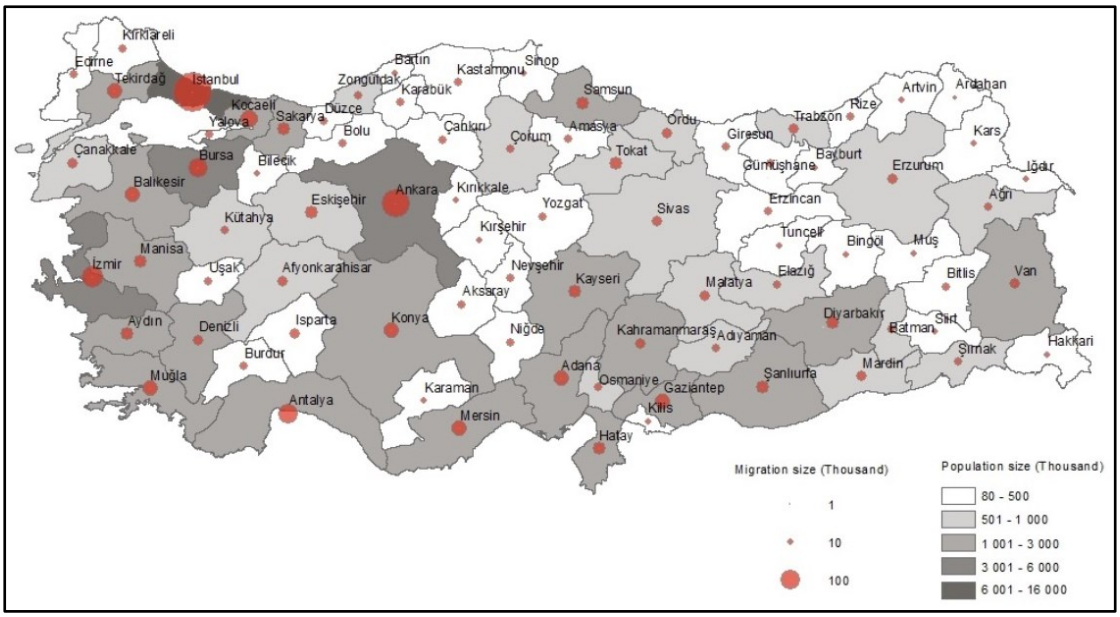


Figure 10 Size of Provincial in-migration, 2021

It was seen that İstanbul, Ankara and İzmir, the provinces with the highest provincial in-migration, were also the provinces with the highest provincial out-migration. İstanbul took the first place in provincial out-migration with 408 thousand 165 people and was followed by Ankara with 165 thousand 604 people and İzmir with 109 thousand 470 people. The provinces with the lowest provincial out-migration were Bayburt with 6 thousand 382 people, Ardahan with 6 thousand 445 people and Tunceli with 6 thousand 517 people, respectively.

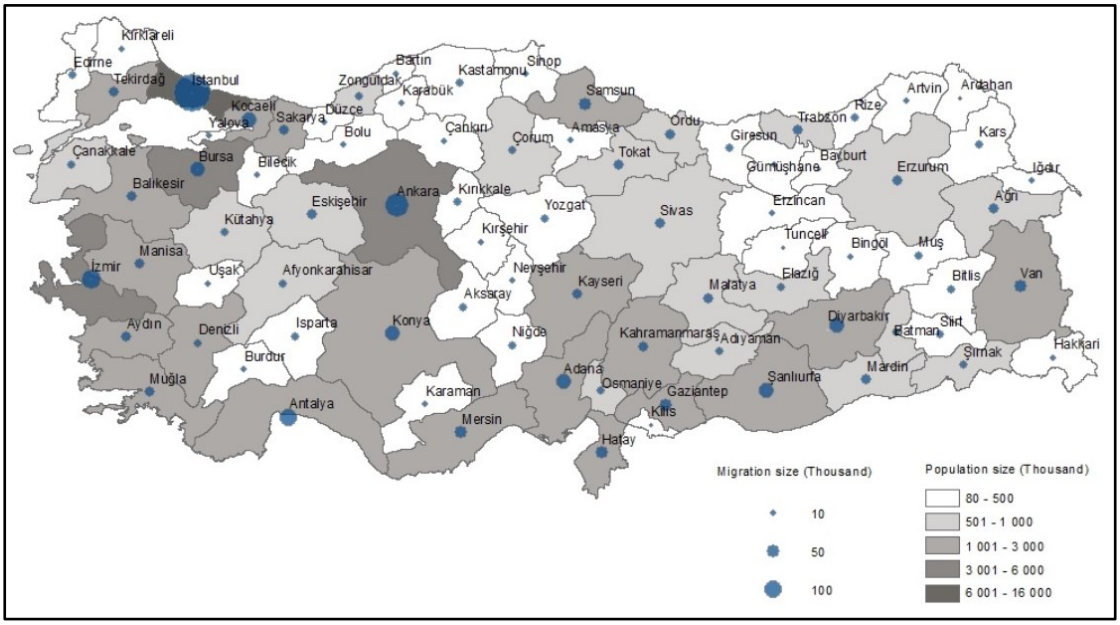


Figure 11 Size of Provincial out-migration, 2021

3.1.1 Antalya

Antalya is one of the largest provinces of Türkiye with an area of 20,723 km^2 and is surrounded by Mersin, Konya and Karaman provinces to the east, Isparta and Burdur provinces to the north, and Muğla province to the west. In Antalya Mediterranean climate conditions are dominant, so the winters are temperature and rainy and the summers are hot and dry. Antalya province is a tourism center with downtown area located on the Mediterranean coast south of Türkiye. The length of Antalya coastline extends for 630 kilometers and the city is considered as the "Capital of Tourism" in Türkiye. Antalya is located between 36°07' and 37°29' north parallels and 29°20' and 32°35' east meridians Antalya province, comprising of 19 districts shown in Figure 12, offers significant riches in terms of natural and cultural geographical features. There are 5 districts of Antalya province that are considered as "central districts". These are Aksu, Döşemealtı, Kepez, Konyaaltı and Muratpaşa. The population of Antalya is 2.619.832 (TurkStat, 2021).

Translation:
Akdeniz-Mediterranean; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 12 Districts of Antalya Province

Antalya's economy is mainly based on agriculture, tourism and trade sectors. In case of the distribution of industry in the Mediterranean region, where Antalya is located, it is seen that 14% of the industry in this region belongs to Antalya. When the sectoral distribution of industrial enterprises in Antalya is examined, food products in the first place with 23%. Antalya is a region where one-fifth of its lands is cultivated. When the lands of Antalya suitable for agricultural activities are differentiated as coastal lands and the lands far from the coastline, the coastal lands are suitable not only for growing tropical plants such as oranges, bananas and avocados, but also suitable for greenhouse agriculture.

Water Supply: Four dams are in operation by the 13th Regional Director DSI in order to supply water to Antalya province. These dams are named as Alanya Dim Dam, Karacaoren-II Dam, Manavgat Dam and Oymapınar Dam. The reservoir areas of these dams are protected in

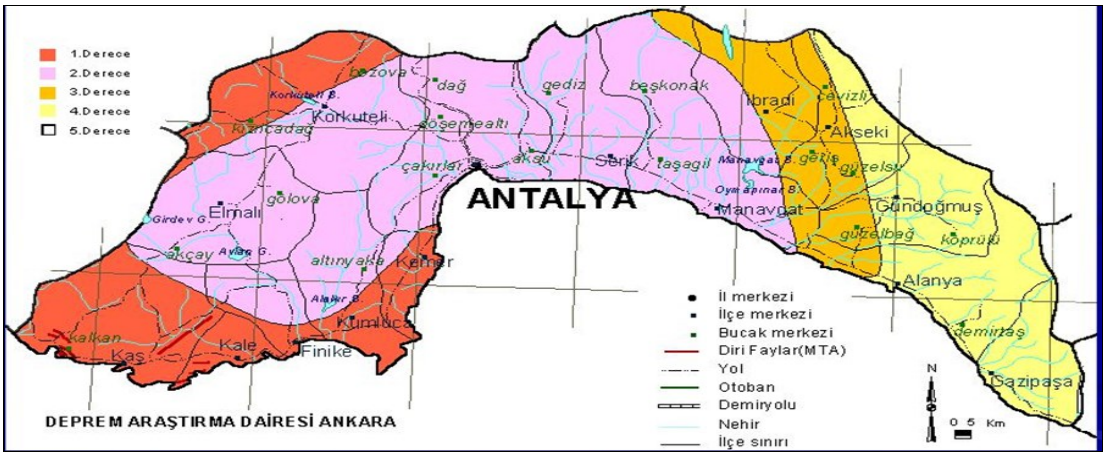
accordance with the Regulation on Protection of Water Basins. According to TurkStat, in 2020, total population benefiting from the water resources are 2,548,308, and total volume of the water drawn is 263,254,000 m^3/year.

Sanitation and Wastewater: The number of central wastewater treatment plants currently in operation has reached 33 as of 2021. Ratio of the population that received Wastewater Treatment Plant services to the total municipal population in 2021 reached 75%.

Drainage and Stormwater: There are storm water systems in many regions throughout Antalya. Especially in areas opened to new settlements, the opening of the storm water network without the construction of the settlement causes flooding.

Solid Waste: The Integrated Waste Recovery, Recycling, and Disposal Facility at the Kızıllı Solid Waste Landfill Site located in the Kızıllı district of Antalya province was completed and put into operation in 2018. The facility provides mechanical separation, biometanization, and disposal of waste through controlled landfilling. The disposal of household solid waste in the districts of Kepez, Muratpaşa, Konyaaltı, Aksu, Döşemealtı, Serik, Kemer, Kumluca, Finike, Korkuteli, and Elmalı is carried out at this facility. In addition, the disposal of household solid waste collected through transfer stations under construction in the districts of Demre and Kaş will also be carried out at this facility. The Alanya Integrated Waste Recycling and Disposal Facility has been put into operation in the Alanya district for the disposal of household solid waste generated in the district. The facility provides mechanical separation, biometanization, and disposal of waste through controlled landfilling. Moreover, the disposal of household solid waste collected through transfer stations under construction in the districts of Gazipaşa, Akseki, İbradı, and Gündoğmuş will also be carried out at this facility.

Seismicity: Antalya city center lies in the second-degree earthquake zone of Türkiye. Western part of Antalya shown in Figure 13, where seismic activity is more intense, lies in the first and second degree zones.



Translation:
1.Derece-1st Degree; 2.Derece-2nd Degree; 3.Derece-3rd Degree; 4.Derece-4th Degree; 5.Derece-5th Degree; il merkezi-City center; İlçe merkezi-District center; Bucak merkezi-Sub-district center; Diri Faylar (MTA)-Active Faults (GENERAL DIRECTORATE OF MINERAL RESEARCH AND EXPLORATION); Yol-Road; Otoban-Highway; Demiryolu-Railway; Nehir-River; İlçe sınırları-District boundaries; İl sınırları-Provincial boundaries

Figure 13. Seismicity Map of Antalya Province

Protected Areas: Two of the 18 Special Environmental Protection Areas of Türkiye are in Antalya. These are Patara Special Environmental Protection Area, Belek Special Environmental Protection Area. There are 5 national parks in the province of Antalya named as Güllük Mountain - Termessos National Park, Beydağları Coastal National Park, Köprülü Canyon National Park and The Altınbeşik Cave National Park.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Antalya province are presented in the tables below.

Table 13 Antalya Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	2.688.004	1.351.702	1.336.302	129
2021	2.619.832	1.314.755	1.305.077	125
2020	2.548.308	1.281.943	1.266.365	122
2019	2.511.700	1.265.171	1.246.529	120
2018	2.426.356	1.222.086	1.204.270	116
2017	2.364.396	1.192.582	1.171.814	113
2016	2.328.555	1.174.936	1.153.619	111
2015	2.288.456	1.156.076	1.132.380	109
2014	2.222.562	1.122.997	1.099.565	106
2013	2.158.265	1.090.843	1.067.422	103
2012	2.092.537	1.058.070	1.034.467	100

Table 14 Antalya Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	2 68 8004	92 004	78 986	13 018	4,9
2020-2021	2 619 832	88 305	80 505	7 800	3,0
2019-2020	2 548 308	83 035	62 325	20 710	8,2
2018-2019	2 511 700	100 140	68 494	31 646	12,7
2017-2018	2 426 356	95 920	80 349	15 571	6,4
2016-2017	2 364 396	87 232	72 178	15 054	6,4
2015-2016	2 328 555	79 203	73 119	6 084	2,6
2014-2015	2 288 456	96 441	68 374	28 067	12,3
2013-2014	2 222 562	93 057	64 631	28 426	12,9
2012-2013	2 158 265	88 605	64 075	24 530	11,4
2011-2012	2 092 537	83 596	62 893	20 703	9,9

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Antalya, is defined as TR61 (Antalya, Isparta, Burdur). In Table 15, the population aged 15 and over in the region is approximately 2 million 585 people, while the labor force participation rate is 55.1 percent. Unemployment rate was 11.8 percent in the region in 2021.

Table 15 Antalya Regional Labor Force Indicators for 2021

TR61 (Antalya, Isparta, Burdur)	Total	Female	Male
Population aged 15 and over (Thousand People)	2585	1278	1307
Labor Force (Thousand)	1425	495	930
Employed (Thousand People)	1257	426	831
Unemployed (Thousand)	168	69	99
Population not included in the labor force (Thousand People)	1160	783	377
Labor force participation rate (%)	55,1	38,7	71,2
Employment rate (%)	48,6	33,3	63,6
Unemployment rate (%)	11,8	13,9	10,7

3.1.2 Düzce

Düzce is one of provinces of western black sea region of Türkiye with an area of 2,492 km^2 and is surrounded by Sakarya province to the west, Bolu provinces to the south, Zonguldak province and the Black Sea to the north.The length of Düzce coastline extends for 35 kilometers. Düzce is located between 40°- 42° north parallels and 30° - 33° east meridians Düzce province, comprising of seven districts and one central district shown in Figure 14. The population of Düzce is 400,976 (TurkStat, 2021).

Translation:
Karadeniz-Black Sea; İşaretler-Signs; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 14. Districts of Düzce Province

Water Supply: Düzce has surface and underground water resources. While using underground water resources as drinking water until 1994, Ugur surface water source, which was activated in 1994, started to meet the water needs of the province. The stream water taken from Düzce and the southwest of the city center comes to the water treatment plant with gravity through the transmission line, and after being treated there, it is given to the city network of Düzce by gravitation. All drinking water of Düzce Province is supplied from Ugur surface water source which is located 10 km southwest from the city center. Total water network is 830 km in Düzce Province. Sarıyayla Nazmi Çiloğlu Dam is used for the water supply of Akçakoca district. Completed in 2016, the dam has the capacity of 1.86 million m^3 water. The water provided from the dam is treated by the new water treatment plant, which was completed and put into operation in 2020, has an annual capacity of 5.05 million m^3 of water.

Sanitation and Wastewater: Although the infrastructure in the central district of Düzce was damaged after the earthquake, it has been used for a long time as a result of the repair works. The sewerage network works were completed in 1968. The wastewater network of the central

of Düzce Province is 620 km. The sewerage system serves 95% of the population at the central of Düzce Province and the collected wastewater ends with the Düzce Central Wastewater Treatment Plant. Düzce central WWTP is an advanced biological wastewater treatment plant with a capacity of 50,000 m^3/day. There are three municipal WWTPs, named as Düzce Central Wastewater Treatment Plant, Akçakoca Central Wastewater Treatment Plant and Akçakoca Ak Evler Wastewater Treatment Plant. Total discharge through these WWTPs is 60,600 m^3/day. In Akçakoca District, there is a 46 km long sewerage network constructed by ILBANK. With the additional constructions, there exist 55 km of sewerage line. Approximately 3% of the settlements in the district has no sewerage network. Septic tanks are used in areas where there is no sewer line. The sewerage system serves 97% of the population of Akçakoca Municipality and the sewerage system ends with the Akçakoca Central Wastewater Treatment Plant.

Drainage and Stormwater: In the central district of Düzce Province, stormwater and wastewater are collected in a separate system. The stormwater network was constructed on the main lines of the city. The network is 190 km in total. Also, stormwater and the wastewater collection systems are separated from each other in Akçakoca distinct.

Solid Waste: Düzce Province Solid Waste Association (DIKAB) was established between Municipalities in Düzce in order to find solutions to environmental problems that cause environmental pollution in Düzce as well and negatively affect public health. Düzce, Beyköy, Boğaziçi, Akçakoca, Cumayeri, Çilimli, Gölyaka, Gümüşova, Kaynaşlı and Yığılca municipalities are members of the union. In 2014, Düzce Special Provincial Administration became a member of the Union. In Düzce Landfill Facility is consist of first and second landfill area and other supplementary units.

The Düzce Sanitary Landfill Site was constructed in accordance with the provisions of the Regulation on the Landfilling of Wastes, which was published in the Official Gazette numbered 27533 and put into effect on 26.03.2010.

A waterproofing layer was created on the completed excavation ground and slopes, consisting of natural clay with a thickness of 50 cm and a geosynthetic clay layer on top, followed by a high-density polyethylene cover (HDPE geomembrane), a protective cover (geotextile), and a 50 cm thick drainage layer made of 16x32 mm pebbles, thus preventing the leakage of any harmful substances into underground or surface waters.

The Solid Waste Landfilling Facility was put into operation in 2020 for the purpose of receiving, separating, and disposing of waste from the Duzce city center and surrounding districts.

Seismicity: Düzce is located on the North Anatolian Fault (NAF), which is one of the most important active faults in Türkiye. Düzce is located in 1st degree earthquake zone shown in Figure 15. This region, which is very active in terms of tectonics. Also, convection and slump movements are the main factors for the earthquakes in Düzce.

Translation:
1.Derece-1st Degree; 2.Derece-2nd Degree; 3.Derece-3rd Degree; 4.Derece-4th Degree; 5.Derece-5th Degree; il merkezi-City center; İlçe merkezi-District center; Bucak merkezi-Sub-district center; Diri Faylar (MTA)-Active Faults (GENERAL DIRECTORATE OF MINERAL RESEARCH AND EXPLORATION); Yol-Road; Otoban-Highway; Demiryolu-Railway; Nehir-River; İlçe sınırları-District boundaries; İl sınırları-Provincial boundaries

Figure 15. Seismicity Map of Düzce Province

Protected Areas: There are three Natural Monuments within the borders of Düzce Province. These Natural Monuments are named as Samandere Waterfall Natural Monument (central district), Sarıkyayla Fir Natural Monument (central district), Kayadibi Yew Tree Natural Monument (Yığılca district). Also, there is only one Nature Protection Area in Düzce Province, which is named as Demirciönü Nature Protection Area located in the borders of Akçakoca district. The surface area of the fiels is 430 ha. Aditionally, there exist a few natural site areas called as Sarikaya Cave Region, Fakilli Cave Region and Akçakoca Castle Area.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Düzce province are presented in the tables below.

Table 16 Düzce Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	405.131	202.950	202.181	157
2021	400.976	200.612	200.364	156
2020	395.679	198.032	197.647	154
2019	392.166	196.494	195.672	152
2018	387.844	194.051	193.793	151
2017	377.610	188.855	188.755	147
2016	370.371	185.775	184.596	144
2015	360.388	181.197	179.191	140
2014	355.549	178.342	177.207	138
2013	351.509	176.071	175.438	137
2012	346.493	173.226	173.267	135

Table 17 Düzce Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	405 131	17 049	15 220	1 829	4,5
2020-2021	400 976	16 828	14 191	2 637	6,6
2019-2020	395 679	11 757	10 565	1 192	3,0
2018-2019	392 166	15 454	14 798	656	1,7
2017-2018	387 844	17 445	12 790	4 655	12,1
2016-2017	377 610	15 023	11 387	3 636	9,7
2015-2016	370 371	15 958	11 119	4 839	13,2
2014-2015	360 388	13 434	12 088	1 346	3,7
2013-2014	355 549	11 980	12 249	- 269	-0,8
2012-2013	351 509	12 367	11 306	1 061	3,0
2011-2012	405 131	17 049	15 220	1 829	4,5

According to the TurkStat, The Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Düzce, is defined as TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova). According to the data in Table 18, while the population in the Region is approximately 3.034.000 people, the labor force participation rate is 50.6 percent. Unemployment rate was 12.2 percent in the region in 2020.

Table 18 Düzce Regional Labor Force Indicators for 2020

TR42 (Kocaeli, Sakarya, Düzce, Bolu, Yalova)	Total	Female	Male
Population aged 15 and over (Thousand People)	3034	1533	1501
Labor Force (Thousand)	1535	477	1058
Employed (Thousand People)	1347	401	947
Unemployed (Thousand)	187	76	111
Population not included in the labor force (Thousand People)	1499	1056	443
Labor force participation rate (%)	50,6	31,1	70,5
Employment rate (%)	44,4	26,1	63,1
Unemployment rate (%)	12,2	16,0	10,5

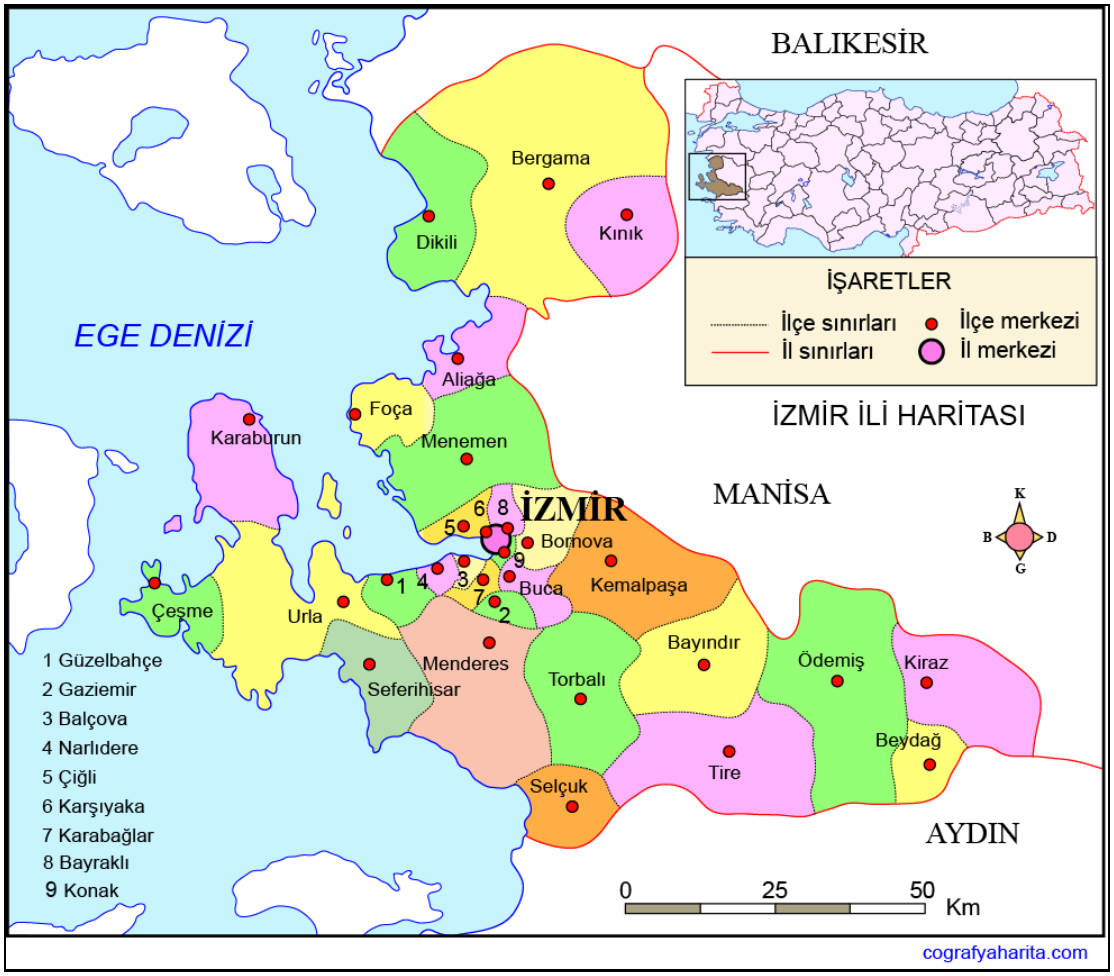
3.1.3 İzmir

Izmir is a harbour city founded in the 11th century BC and is the third most populous city in Türkiye with a population of approximately 4 million. İzmir Metropolitan Municipality has 30 districts. It is surrounded by Madra Mountains and Balıkesir in the north, Kuşadası Bay and Aydın in the south, Çeşme Peninsula and İzmir Bay in the west, and Manisa in the east. Within the provincial borders, there is a sub-branch of the Gediz River, one of the most important rivers of the Aegean Region, and Küçük Menderes and Bakırçay are also active rivers.

According to the Köppen Climate Classification, Izmir Province is classified as mild in winter, very hot in summer and arid (Mediterranean) climate. The average annual temperature in the province varies between 14-18ºC in the coastal areas. The hottest months are July (27.3ºC) and August (27.6ºC) and the coldest months are January (8.6ºC) and February (9.6ºC).

Approximately 16 per cent of Izmir Province is located in the Gediz Basin, 24.91 per cent in the North Aegean Basin and 54.3 per cent in the Küçük Menderes Basin. Çiğli, Foça, Karşıyaka, Kemalpaşa, Menemen, Kiraz, Ödemiş, Bornova, Bayındır and Aliağa Districts of İzmir Province are located in the Gediz Basin; Aliağa, Bergama, Dikili, Foça, Menemen and Kınık Districts are located in the North Aegean Basin; Balçova, Bayındır, Bayraklı, Beydağ and Beydağ Districts are located in the North Aegean Basin, Bornova, Buca, Çeşme, Çiğli, Gaziemir, Güzelbahçe, Karabağlar, Karaburun, Karşıyaka, Kemalpaşa, Kiraz, Konak,

Menderes, Menemen, Narlıdere, Ödemiş, Seferihisar, Selçuk, Tire, Torbalı and Urla Districts are within the Küçük Menderes Basin.



Translation:
Ege Denizi-Aegean Sea; İşaretler-Signs; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 16 Districts of İzmir

Water Supply: Izmir's drinking and utility water is supplied from underground water sources (deep wells) and surface water sources (dams, spring waters). The sources supplying water to the city of Izmir, are:

- Sarıkız deep wells (Manisa-Saruhanlı)
- Goksu deep wells (Manisa-Muradiye)
- Menemen deep wells (Menemen)
- Cavuskoy deep wells (Menemen)
- Halkapinar deep wells (Konak)
- Pinarbasi deep wells (Bornova)
- Buca and Sarnıç deep wells (Buca, Gaziemir)
- Tahtali dam (Menderes)
- Balçova dam (Balçova)
- Gördes dam (Manisa-Gördes).

Tahtalı Dam is located 40 kilometers south of Izmir, 5 kilometers east of Gümüldür, on the Tahtalı stream. The Tahtalı Dam was constructed by the State Hydraulic Works and completed in 1996. The dam started supplying water to Izmir on August 27, 1997.

The Balçova Dam, located on the Ilıca stream 3 kilometers south of the Ilıca facilities in Balçova district, is for drinking water purposes. The dam, the design and construction of which was carried out by the State Hydraulic Works, was completed in 1980 and started supplying drinking water to the city of İzmir in May 1984. In order to improve the quality of the raw water taken from the dam to the drinking water treatment plant, İZSU installed a 'surface water intake system' on the lake. Since 2011, this system has been in use.

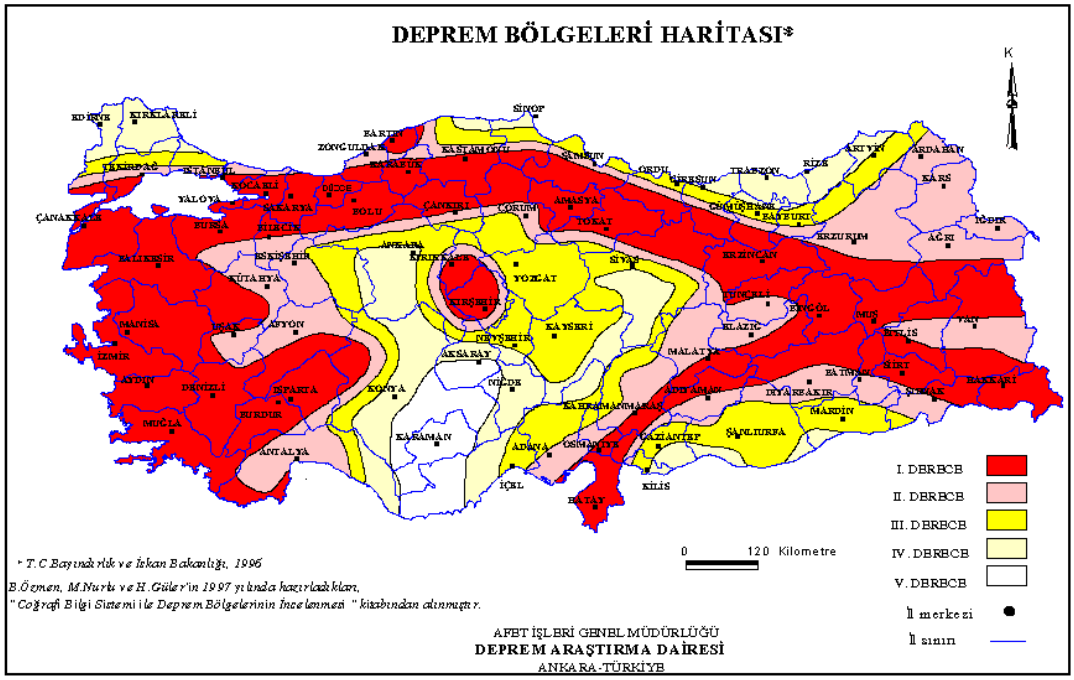
Gördes Dam was constructed on the Gördes Stream in Manisa with a capacity of 58.9 million m3/year between 1998 and 2009 to provide irrigation services and drinking water supply to an area of 19,260 hectares. The dam meets the drinking water demand of İzmir.

Drainage and Stormwater: In İzmir, stormwater and wastewater system is designed as partially separated and partially combined system, and it is currently in use. There are 723 kilometers of stormwater lines and 4017 wastewater lines in the city.

Solid Waste: Approximately 97.6% of the municipal waste collected from the district municipalities in İzmir is disposed of at the Ödemiş Integrated Solid Waste Management Facility, Bergama Integrated Solid Waste Management Facility, and Harmandalı Energy Production Facility, while the remaining 2.4% is disposed of at the Tire dumpsite. Rehabilitation work is ongoing at the Tire dumpsite.

Seismicity: Due to factors such as the fact that the settlements in Izmir Province are generally located on alluvial soils with high groundwater levels on and/or near the faults, and that the building stock and the number of earthquake-resistant buildings in the province are unknown, earthquakes occurring in the region are likely to cause loss of life and property in the future as in the past. According to the 2012 updated Direct Fault Map of Türkiye, there are a total of 21 faults in Izmir Province, 17 of which are classified as Holocene Faults/Quaternary Faults and 4 of which are classified as Neotectonic period faults. These faults have the potential to produce destructive earthquakes with magnitudes ranging from 5.0 to 7.0. In the Earthquake Hazard Map of Türkiye, it is seen that the largest ground acceleration values for Izmir Province are concentrated in the areas where live faults are located. In addition to 21 faults with the potential to produce earthquakes of magnitude 6-7.2 within Izmir Province, there are also many faults under the Aegean Sea, which borders the province from the west.

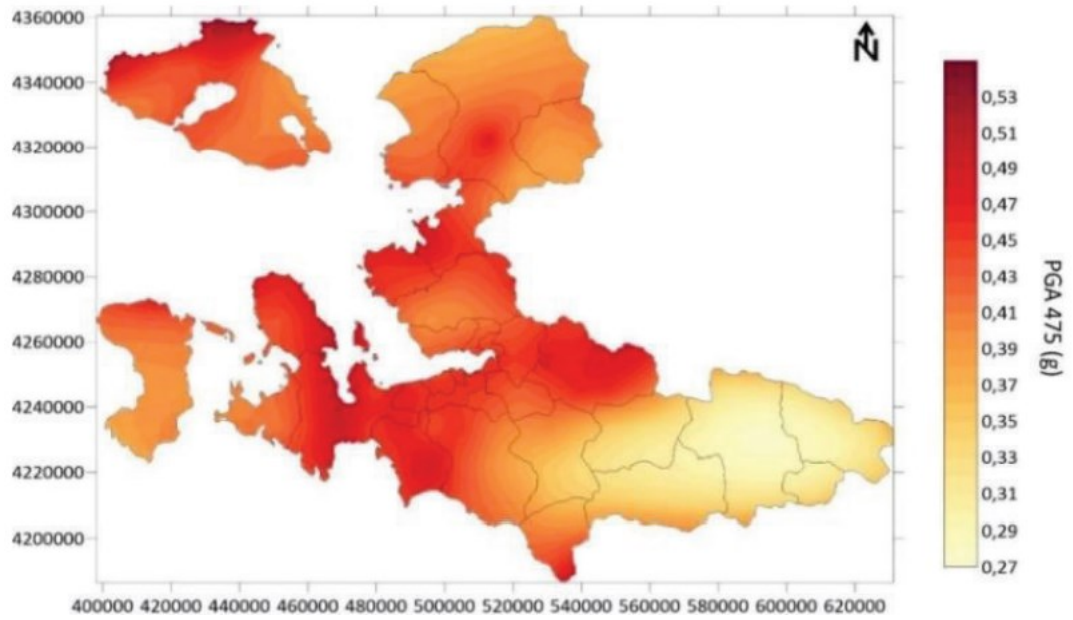
Earthquake hazard maps were produced by AFAD for Türkiye in terms of maximum ground acceleration (PGA), maximum ground velocity (PGV), spectral accelerations (SS and S1) with 5% damping at 0.2 s and 1.0 s periods for different recurrence periods (43, 72, 475 and 2475 years) based on reference ground condition (Vs)30=760 m/s. In the earthquake hazard map, it is seen that the largest ground acceleration values for Izmir province are concentrated in areas with live faults.



Source: İzmir 2021 Annual Report

Translation:
Deprem Bölgeleri Haritası-Earthquake Zones Map; I.Derece-1st Degree; II.Derece-2nd Degree; III.Derece-3rd Degree; IV.Derece-4th Degree; V.Derece-5th Degree; il merkezi-City center; İl sınırları-Provincial boundaries

Figure 17 Earthquake Hazard Map of Turkey



Source: İzmir 2021 Annual Report

Figure 18 İzmir Maximum Ground Acceleration 475 Values

Protected Areas: The areas where the ancient cities in and around Izmir are located are designated as Archaeological Protected Areas. Urban sites in the planning area Kemeraltı in Izmir is an urban site. Alsancak (Kordon), Konak are designated as historical sites. There are Urban Conservation Areas in Buca, Bornova, Urla, Çeşme, Alaçatı, Seferihisar, Selçuk, Şirince, Menemen, Foça, Yenifoça and Çandarlı.

The Gediz Delta is a large coastal wetland consisting of salt and freshwater marshes, bays, salt flats and four lagoons, located 25 km northwest of Izmir, where the Gediz River used to flow into the Aegean Sea. It is also famous as 'Çamaltı Tuzlası' or 'İzmir Bird Paradise'. It is one of the 14 Ramsar Sites of our country. The wetland ecosystem of the Gediz Delta consists mainly of freshwater and saltwater meadows that form the Kırdeniz Lagoon, Homa Lagoon, Çamaltı Tuzlası, Çilazmak Lagoon, Ragıppaşa Dalyanı and the northern Gediz Delta from north to south. The reeds in the north, where fresh water gives life, are extremely important in terms of biological diversity. Salt is still produced in Çamaltı Tuzla Enterprise. Seafood production is carried out in Homa and Kırdeniz lagoons. Especially the part of the Delta known as the Menemen Plain has highly productive agricultural lands. One of the other important economic input elements is livestock breeding activities, which are concentrated especially in the Seyrek - Süzbeyli region. Irrigated and dry agriculture is carried out in alluvial areas. The Gediz Delta, which has a very rich biodiversity, is a very important area especially for birds. In this respect, the delta has been named 'Izmir Bird Sanctuary'. A total of 281 bird species were identified during bird observations in the delta. Together with Tuz Lake, the delta is one of the two areas in Türkiye where the highest number of flamingos stay. Approximately 20,400 km2 of the Gediz Delta was included in the Ramsar Convention List in 1998 with the decision of the Council of Ministers and declared as a "Wetland of International Importance". Apart from Ramsar, the area has had the status of 'protected area' since 1981. Date of Declaration of Ramsar Site and Size of Ramsar Site: 15/04/98 - 14,900 ha.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of İzmir province are presented in the tables below.

Table 19 İzmir Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	4.462.056	2.215.716	2.246.340	372
2021	4.425.789	2.199.287	2.226.502	369
2020	4.394.694	2.187.226	2.207.468	366
2019	4.367.251	2.174.319	2.192.932	364
2018	4.320.519	2.152.585	2.167.934	360
2017	4.279.677	2.133.548	2.146.129	356
2016	4.223.545	2.104.632	2.118.913	352
2015	4.168.415	2.078.224	2.090.191	347
2014	4.113.072	2.050.424	2.062.648	343
2013	4.061.074	2.027.334	2.033.740	338
2012	4.005.459	1.999.246	2.006.213	334

Table 20 İzmir Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	4 462 056	132 426	107 312	25 114	5,6
2020-2021	4 425 789	131 394	109 470	21 924	5,0
2019-2020	4 394 694	107 172	92 400	14 772	3,4
2018-2019	4 367 251	128 370	106 895	21 475	4,9
2017-2018	4 320 519	130 092	117 113	12 979	3,0
2016-2017	4 279 677	127 394	102 776	24 618	5,8
2015-2016	4 223 545	122 668	98 902	23 766	5,6
2014-2015	4 168 415	126 238	105 389	20 849	5,0
2013-2014	4 113 072	124 439	101 447	22 992	5,6
2012-2013	4 061 074	113 673	99 681	13 992	3,5
2011-2012	4 005 459	105 804	95 954	9 850	2,5

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of İzmir, is defined as TR31 (İzmir). In Table 21, the approximate population in the region is 3.6 million. while the labor force participation rate is 52.1 percent. Unemployment rate was 14.7 percent in the region in 2021.

Table 21 İzmir Regional Labor Force Indicators for 2021

TR31 (İzmir)	Total	Female	Male
Population aged 15 and over (Thousand People)	3572	1806	1766
Labor Force (Thousand)	1861	640	1220
Employed (Thousand People)	1588	511	1077
Unemployed (Thousand)	273	129	143
Population not included in the labor force (Thousand People)	1711	1166	546
Labor force participation rate (%)	52,1	35,5	69,1
Employment rate (%)	44,4	28,3	61
Unemployment rate (%)	14,7	20,2	11,8

3.1.4 Kastamonu

Kastamonu Province is located in the Western Black Sea Region of Türkiye and is surrounded by Sinop on the east, by Bartın and Karabük on the west, by Çankırı on the south and by Çorum on the southeast. It is surrounded on the north side by the Black Sea. Kastamonu Province has a 13,108 km2 surface area and constitutes 1.7% of the area of Türkiye. The province has a 170 km length of shoreline with the Black Sea. The province is in between °32° 43' and 34º 37’ eastern longitude and 40°48- 42°02 northern latitude. The population density is 29 inhabitants/km². Province is mostly around mountains, as such residential areas have more density. The province is considered very rich in terms of vegetation. 67% of the province's lands are covered with forests and heaths, 29% with cultivated areas, and 6.5% with meadows and pastures. 1.5% of the land is unsuitable for agriculture. The climate of Kastamonu province is typically classified as a humid continental climate, with cold, snowy winters and warm summers. The province is located in the Black Sea region of Türkiye, which generally experiences a relatively high level of precipitation throughout the year. Kastamonu is divided into 20 districts with its capital district being the district of Kastamonu.

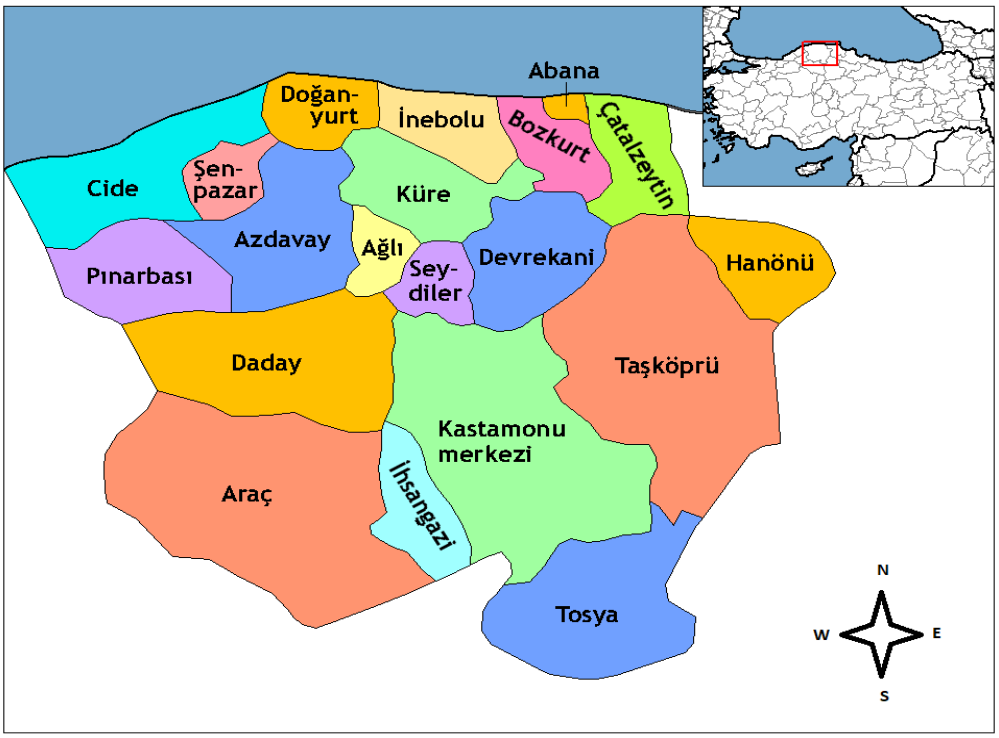


Figure 19 Location and Districts of Kastamonu Province

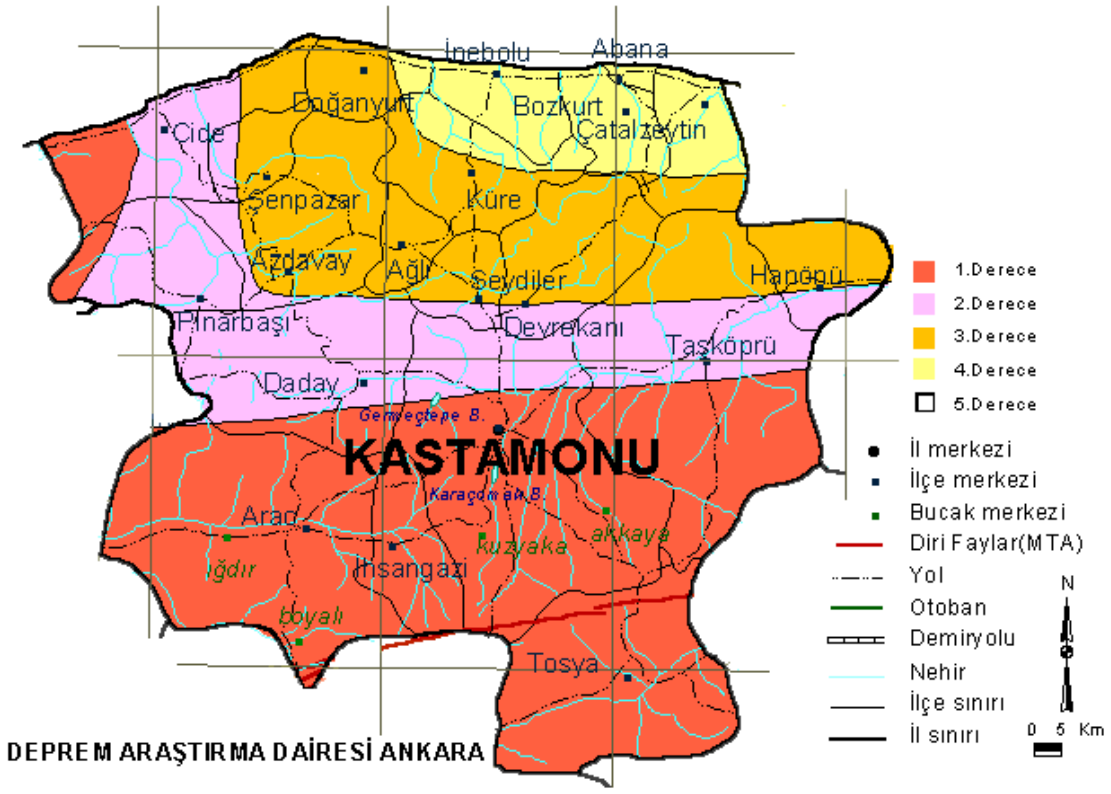
Water Supply: potable water needs in Kastamonu are provided from two main sources. The source, which is the surface water, is the Karaçomak Dam, which is approximately 6 kilometers from the city. As of 2021, this source has met approximately 80% of the water need of Kastamonu province. The second important source that meets Kastamonu's water needs is Gürleyik. It is located in the mountains south of the city. It met approximately 20% of water production in 2021. All of the underground water resources within the borders of the municipality are for drinking water purposes. There are 5 wells, but their efficiency is quite low. Since the use of wells is not continuous, their contribution to the city grid is very low.

Sanitation and Wastewater: The existing sewerage system has developed over time in parallel with the development of the city. Wastewater network reaches 93% of the total population of the city. There are 8 wastewater treatment plant in Kastamonu. The treatment sludge from treatment plants is sent to licensed disposal facilities and disposed of.

Drainage and Stormwater: The system is designed as a partially separate and partially combined system and is in use.

Solid Waste: There is a solid waste landfill site in Kastamonu. Leachate from the solid waste landfill facility is collected in the leachate pool. The wastewater collected in the leachate pool is treated and discharged to wastewater treatment plant. There is one solid waste landfill facility in the city, and a wastewater treatment plant was built in 2021 for leachate from solid wastes.

Seismicity: Kastamonu city center is located in the I. degree earthquake zone in the 1996 earthquake zones map. On the other hand, 46% of Kastamonu province borders are in the I. degree, 22% in the II. degree, 24% in the III. degree and 8% in the IV. degree earthquake zone.



Translation:
1.Derece-1st Degree; 2.Derece-2nd Degree; 3.Derece-3rd Degree; 4.Derece-4th Degree; 5.Derece-5th Degree; il merkezi-City center; İlçe merkezi-District center; Bucak merkezi-Sub-district center; Diri Faylar (MTA)-Active Faults (GENERAL DIRECTORATE OF MINERAL RESEARCH AND EXPLORATION); Yol-Road; Otoban-Highway; Demiryolu-Railway; Nehir-River; İlçe sınırları-District boundaries; İl sınırları-Provincial boundaries

Figure 20. Seismicity Map of Kastamonu Province

Protected Areas: Ilgaz Dağı National Park is located in the Western Black Sea Region, within the borders of Kastamonu and Çankırı Provinces. Ankara - Çankırı - Kastamonu State Highway passes through the National Park. It is 40 km to Kastamonu city center and 200 km to Ankara. An important resource of the National Park is the opportunity of winter sports. These natural and recreational resources of Ilgaz Mountain constitute the main resource values of the national park.

Küre Mountains National Park covers an area of 37,000 hectares within the borders of Kastamonu and Bartın Provinces in the Western Black Sea Region and is one of the regions with rich flora and fauna.

Kastamonu-Independence Road Historical National Park is located within the borders of Kastamonu and Çankırı Provinces and has an area of 235.7 hectares. The Independence Road is a 344 km road starting from the coast of İnebolu and extending to Ankara via Kastamonu and Çankırı, which was used during the Turkish War of Independence to transport the ammunition that came to İnebolu by sea to the front with oxcarts.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Kastamonu province are presented in the tables below.

Table 22 Kastamonu Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	378.115	186.902	191.213	29
2021	375.592	186.116	189.476	29
2020	376.377	187.264	189.113	29
2019	379.405	189.247	190.158	29
2018	383.373	191.431	191.942	29
2017	372.373	184.289	188.084	28
2016	376.945	188.039	188.906	29
2015	372.633	184.585	188.048	28
2014	368.907	183.564	185.343	28
2013	368.093	183.188	184.905	28
2012	359.808	177.647	182.161	27

Table 23 Kastamonu Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	378 115	19 960	16 321	3 639	9,7
2020-2021	375 592	18 463	17 241	1 222	3,3
2019-2020	376 377	14 177	15 328	- 1 151	-3,1
2018-2019	379 405	17 737	22 515	- 4 778	-12,5
2017-2018	383 373	27 175	18 397	8 778	23,2
2016-2017	372 373	18 729	20 052	- 1 323	-3,5
2015-2016	376 945	20 577	18 898	1 679	4,5
2014-2015	372 633	21 601	18 092	3 509	9,5
2013-2014	368 907	17 539	18 163	- 624	-1,7
2012-2013	368 093	19 911	15 658	4 253	11,6
2011-2012	359 808	14 340	13 933	407	1,1

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, including Kastamonu province, is defined as TR82 (Kastamonu, Çankırı, Sinop). According to the data in Table 24, while the population in the Region is approximately 634,000 people, the labor force participation rate is 50.5 percent. The unemployment rate in the region was 6.6 percent in 2020.

Table 24 Kastamonu Regional Labor Force Indicators for 2020

TR82 (Kastamonu, Çankırı, Sinop)	Total	Female	Male
Population aged 15 and over (Thousand People)	634	324	310
Labor Force (Thousand)	320	119	201
Employed (Thousand People)	299	110	189
Unemployed (Thousand)	21	9	12
Population not included in the labor force (Thousand People)	314	205	109
Labor force participation rate (%)	50,5	36,8	64,8
Employment rate (%)	47,2	34	60,9
Unemployment rate (%)	6,6	7,6	6,0

3.1.5 Malatya

Malatya province is located in the upper Euphrates basin of the Eastern Anatolia Region and at the Southwestern end of the Adıyaman, Malatya, Elazığ, Bingöl, Muş, Van depression area. It is bordered by the provinces of Elazığ and Diyarbakır in the east, Adıyaman in the south, Kahramanmaraş in the west, and Sivas and Erzincan in the north. The area of the province's territory is 12,313 km^2 and lies between 35 34` and 39 03` northern latitudes and 38 45` and 39 08` east longitudes. Malatya opens to the Mediterranean with Sultansuyu and Sürgü Stream Valleys, Tohma Valley and Central Anatolia, and to Eastern Anatolia with the Euphrates Valley and creates a transition area between these regions. Malatya is a plain located between East, Southeast and Central Anatolia. The plain extends with a slight slope from north to south. The land is far from the sea and high. Therefore, the climate of Malatya is harsh. The summers are hot and dry; in winters, despite the harsh climate, which is often rainy and cold, it is possible to see the Eastern, Southeastern and Central Anatolian climate characteristics in the region. Malatya Province consists of 13 districts where Battalgazi and Yeşilyurt Districts are the central ones. The population of Malatya is 808.692 (TurkStat, 2021)

Figure 21 Location and Districts of Malatya Province

The performance of infrastructure within Malatya is summarized as follows:

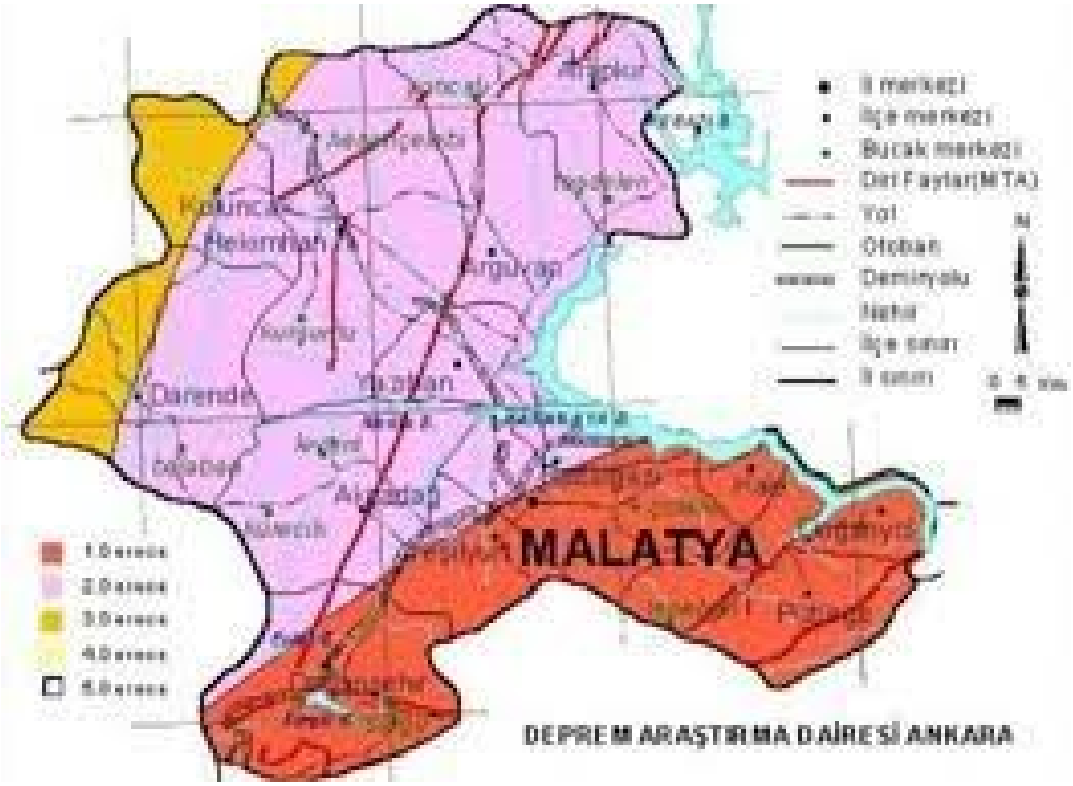
Water Supply: Drinking water is supplied from surface water resources. Drinking water need of Malatya is supplied from Gündüzbey-Pınarbaşı upstream, which is 22 km away from Malatya. The water supplied from the water source in Gündüzbey Kozluk area has a flow rate of approximately 2,200 lt/sec. Groundwater source is not used in Malatya and water is provided from a single source.

Sanitation and Wastewater: In Malatya province, sewerage lines are collected in the city with a closed pipe system and connected to 3 collector lines, east, west and center, and conveyed to the wastewater treatment plant. The sewage sludge of the wastewater treatment plant of Malatya Municipality is stabilized with lime and dried in the storage areas. After reaching a certain dryness, it is sent to the waste storage area of Malatya Municipality and disposed of.

Drainage and Stormwater: As stated in the recently published 2019 annual report, stormwater lines of 4,907 m were laid on the streets and avenues in various parts of the city within the scope of the projects and investments carried out within MASKI's area of activity.

Solid Waste: There are 2 separate areas, Malatya Integrated Environmental Facility and Kapıkaya Solid Waste Landfill and Disposal Area, which belong to Malatya Metropolitan Municipality.

Seismicity: The East Anatolian Fault Zone (EAFZ), which was developed in the continent due to the convergence between the Arabian Plate and the Anatolian Block, has a significant impact on the tectonic evolution of the Eastern Mediterranean passes through Malatya.



Translation:
1.Derece-1st Degree; 2.Derece-2nd Degree; 3.Derece-3rd Degree; 4.Derece-4th Degree; 5.Derece-5th Degree; il merkezi-City center; İlçe merkezi-District center; Bucak merkezi-Sub-district center; Diri Faylar (MTA)-Active Faults (GENERAL DIRECTORATE OF MINERAL RESEARCH AND EXPLORATION); Yol-Road; Otoban-Highway; Demiryolu-Railway; Nehir-River; İlçe sınırları-District boundaries; İl sınırları-Provincial boundaries

Figure 22. Seismicity Map of Malatya Province

Protected Areas: In Malatya Province there are several natural protected areas, monumental trees and caves[17].

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Malatya province are presented in the tables below.

Table 25 Malatya Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	812.580	405.398	407.182	67
2021	808.692	403.607	405.085	67
2020	806.156	401.610	404.546	66
2019	800.165	398.249	401.916	66
2018	797.036	396.877	400.159	66
2017	786.676	391.869	394.807	65
2016	781.305	389.572	391.733	64
2015	772.904	385.440	387.464	64
2014	769.544	383.933	385.611	63
2013	762.538	380.704	381.834	63
2012	762.366	381.025	381.341	63

Table 26 Malatya Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	812 580	28 684	30 104	- 1 420	-1,7
2020-2021	808 692	28 521	31 737	- 3 216	-4,0
2019-2020	806 156	24 198	23 329	869	1,1
2018-2019	800 165	29 880	33 272	- 3 392	-4,2
2017-2018	797 036	36 901	35 234	1 667	2,1
2016-2017	786 676	27 523	28 222	- 699	-0,9
2015-2016	781 305	27 777	27 613	164	0,2
2014-2015	772 904	26 925	31 368	- 4 443	-5,7
2013-2014	769 544	29 285	31 476	- 2 191	-2,8
2012-2013	762 538	25 876	33 194	- 7 318	-9,6
2011-2012	762 366	24 270	28 545	- 4 275	-5,6

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Malatya, is defined as TRB1 (Malatya, Elazığ, Bingöl, Tunceli). According to the data in Table 27, while the population in the Region is approximately 1,319,000 people, the labor force participation rate is 46.6 percent. Unemployment rate was 10.6 percent in the region in 2020.

Table 27 Malatya Regional Labor Force Indicators for 2020

TRB1 (Malatya, Elazığ, Bingöl, Tunceli)	Total	Female	Male
Population aged 15 and over (Thousand People)	1319	677	642
Labor Force (Thousand)	615	188	427
Employed (Thousand People)	550	166	385
Unemployed (Thousand)	65	22	43
Population not included in the labor force (Thousand People)	704	489	215
Labor force participation rate (%)	46,6	27,7	66,5
Employment rate (%)	41,7	24,5	59,9
Unemployment rate (%)	10,6	11,8	10,0

[17] https://malatya.csb.gov.tr/malatya-ili-tabiat-varliklarimiz-i-4281

3.1.6 Muğla

Muğla Province is located at the southern end of Western Anatolia, between 36˚17′ and 37˚33′ northern latitudes and 27˚13′ and 29˚46′ east longitudes, in a mountainous region where the Aegean and Mediterranean Regions are intertwined. Muğla Province, with an area of 12890 km^2, is surrounded by Aydın in the north, Denizli and Burdur in the northeast, Antalya in the east, the Mediterranean and Aegean Seas in the south and west. Muğla is the province with the longest coastline in Türkiye, with its seacoasts approaching 1,500 km in total length.

Muğla province is administratively divided into 13 districts and municipalities and 569 neighborhoods as of 2021. The total population of the province is 1,021,141 according to the 2021 census results obtained from TurkStat's Address Based Population Registration System, (ABPRS). The districts of Muğla Province are shown in the Figure 23 below.

Translation:
Ege Denizi-Aegean Sea; İşaretler-Signs; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 23 Location and Districts of Muğla Province

Water Supply: The current water needs of Mugla are met by 3 dams, various springs and more than 600 active wells. The waters of Marmaris (Ataturk) Dam, Mumcular Dam and Geyik Dam are treated in WTP and then enter the network. MUSKI regularly monitors water quality in springs and wells. The amount of water allocated by 3 dams is 33,22 hm³.

As of 2019, the total length of water network under the responsibility of MUSKI (Muğla Water and Wastewater Administration) is 9,892 km.

Currently, there are five Water Treatment Plant (WTPs) operating under MUSKI. WTPs treat the water coming from dams where drinking water is provided and from some springs and wells, and make them in compliance with the "Regulation on the Use of Water for Human Consumption" and standards and deliver it to the districts/neighborhoods they serve.

Sanitation and Wastewater: According to the data of 2021, there is a total of 2,745.70km sewerage network in Muğla consisting of pipes of various diameters and types. In addition to

wastewater collection systems, there are also septic tanks of MUSKI in the city that are evacuated by sewerage trucks and private companies.

In the province of Muğla there are 33 wastewater treatment plants in total, of which 26 are biological treatment, two are advanced treatment and three are natural treatment. There are a total of 6 Deep Sea Discharge units in Marmaris, Datca, Fethiye and Bodrum, and in five of them, the wastewater is treated and discharged into the sea. According to TurkStat data for the year 2021, the ratio of the municipality population served by the wastewater treatment plant to the total municipality population is 78%.

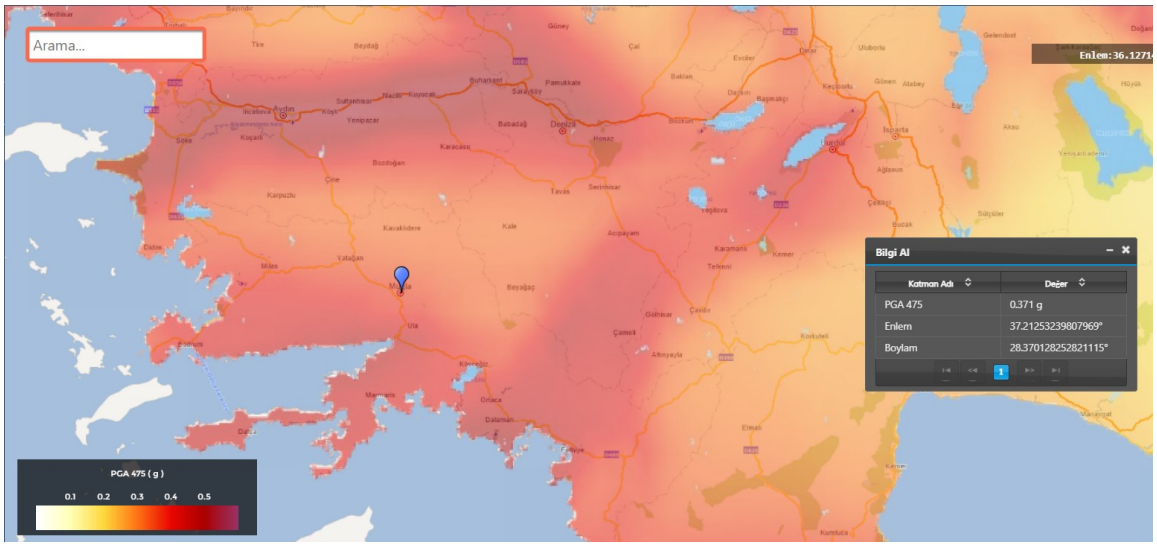
Drainage and Stormwater: The total construction of stormwater line in 2021 is 620.10 km.

Solid waste: There are six solid waste landfill facilities in Ortaca, Fethiye, Marmaris, Datça, Menteşe and Milas districts. There is also 1 solid waste transfer station. The amount of waste disposed on the basis of the facility in 2021 is given below:

- Ortaca Solid Waste Landfill - 50,704.83 tons/year
- Fethiye Solid Waste Landfill Facility - 122,584,50 tons/year
- Marmaris Solid Waste Landfill Facility - 78,103,85 tons/year
- Datça Solid Waste Landfill - 23,257.59 tons/year
- Menteşe Solid Waste Landfill - 74,754.55 tons/year
- Milas Solid Waste Landfill Facility - 65,754.84 tons/year

In total, 415,160,16 tons/year of domestic waste was disposed of throughout Muğla Province. In addition, methane gas generated as a result of the disposal process in Ortaca, Fethiye, Marmaris, Menteşe and Milas facilities is collected and converted into electrical energy in Biomass Power Plants.

Seismicity: According to the Earthquake Risk Map of Türkiye, as seen from Figure 24 ground acceleration value of the Muğla is 0.37 g ground acceleration level which can be classified as high risk regarding seismicity.



Source: MUSKI data, MUSKI 2021 Annual Report

Figure 24 Seismicity Map of Muğla

Protected areas: There are 2 National Parks (Marmaris and Saklikent) in Muğla Province. The "Datça-Bozburun Peninsula", where Marmaris National Park is located, is one of the 100 forest hotspots that need to be protected in Europe and one of the 9 forest hotspots in Turkey. Marmaris National Park is also located within the "Mediterranean Forests" and the marine "Mediterranean Region", which is one of the 200 ecological regions prioritized globally for nature conservation by the World Wide Fund for Nature (WWF). In terms of biodiversity and threats, the Mediterranean Region is one of the world's 25 hot and important hotspots. National Park; Important Nature Area, Important Plant Area, Endemic Plant Area (WWF-IUCN), Important Bird Area and Important Mammal Area.

The total size of Saklikent National Park, which falls within the borders of Muğla and Antalya provinces is 1,643 hectares and its area in Muğla province is 87 hectares. It was declared on 06.06.1996 and its resource value is Saklıkent Canyon.

There are 11 Natural Parks in Muğla and they have an area of 6,130 ha.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Muğla province are presented in the tables below.

Table 28 Muğla Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	812.580	405.398	407.182	67
2021	808.692	403.607	405.085	67
2020	806.156	401.610	404.546	66
2019	800.165	398.249	401.916	66
2018	797.036	396.877	400.159	66
2017	786.676	391.869	394.807	65
2016	781.305	389.572	391.733	64
2015	772.904	385.440	387.464	64
2014	769.544	383.933	385.611	63
2013	762.538	380.704	381.834	63
2012	762.366	381.025	381.341	63

Table 29 Muğla Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	1 048 185	49 179	36 702	12 477	12,0
2020-2021	1 021 141	49 545	35 133	14 412	14,2
2019-2020	1 000 773	41 468	28 088	13 380	13,5
2018-2019	983 142	42 987	36 210	6 777	6,9
2017-2018	967 487	52 642	34 302	18 340	19,1
2016-2017	938 751	42 450	33 289	9 161	9,8
2015-2016	923 773	39 076	31 520	7 556	8,2
2014-2015	908 877	42 112	37 663	4 449	4,9
2013-2014	894 509	48 219	29 671	18 548	21,0
2012-2013	866 665	35 246	30 687	4 559	5,3
2011-2012	851 145	33 213	28 301	4 912	5,8

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Muğla, is defined as TR32 (Aydın, Denizli, Muğla). According to the data in Table 30, while the population in the Region is approximately 2.494.000 people, the labor force participation rate is 51.1 percent. Unemployment rate was 9.6 percent in the region in 2020.

Table 30 Muğla Regional Labor Force Indicators for 2020

TR32 (Aydın, Denizli, Muğla)	Total	Female	Male
Population aged 15 and over (Thousand People)	2494	1246	1249
Labor Force (Thousand)	1275	440	834
Employed (Thousand People)	1152	391	761
Unemployed (Thousand)	123	50	73
Population not included in the labor force (Thousand People)	1220	805	414
Labor force participation rate (%)	51,1	35,4	66,8
Employment rate (%)	46,2	31,4	60,9
Unemployment rate (%)	9,6	11,3	8,8

3.1.7 Rize

Rize Province is located on the east of the coastline of the Black Sea. Rize Province is surrounded by Trabzon in the west, by Erzurum and Bayburt in the south, by Artvin in the east and by Black Sea into the north.

Area of Rize is 3,835 km^2.The current settlements of Rize Municipality start from sea level and reach to the elevation of 360 m. The highest elevations of the settlement are the upper parts of Dağsu and Ekmekçiler Neighbourhoods. Rize has a very rough and mountainous terrain with 80 km length of the coastline. The width of the coastline ranges from 20 to 150 m.

Beside the Central District, Rize has 11 districts, four sub-districts and 350 villages. The total number of municipal towns of the province is 18 together with Kendirli and Madenli Towns. Districts are Ardeşen, Çamlıhemşin, Çayeli, Derepazarı, Fındıklı, Güneysu, Hemşin, İkizdere, İyidere, Kalkandere and Pazar.

According to the 2021 census results obtained from TurkStat, Address Based Population Registration System (ABPRS) population of Rize is 345,662.

Translation:
Karadeniz-Black Sea; İşaretler-Signs; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 25 Location of Rize Province

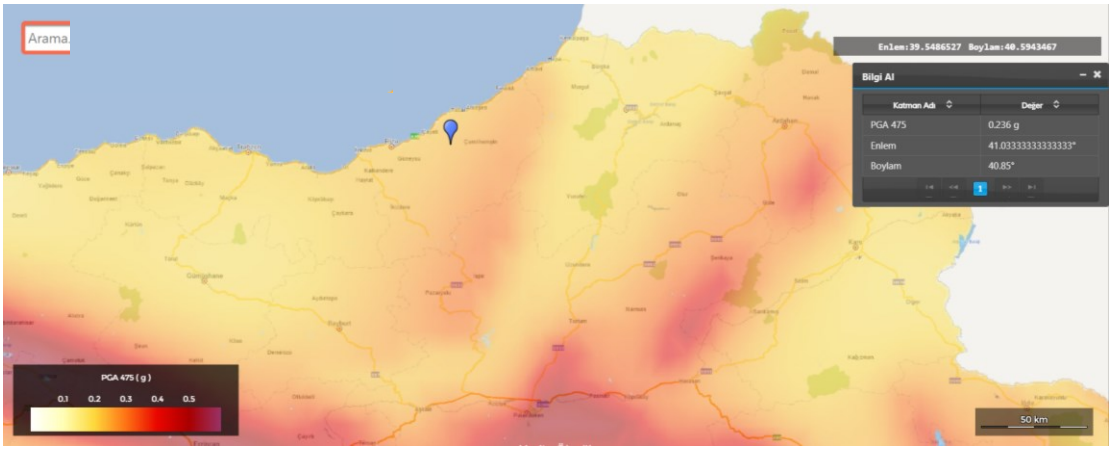
Water Supply: In order to supply the water demand of Rize (Centre) and surrounding municipalities, master plan and feasibility studies have been done. As a result of the feasibility studies, Andon Water Supply Project has been constructed in three stages. As a result of the project, Rize water supply system has been improved from the pumping system fed by wells into gravity system fed by Poşut and Ilıca Creeks. Raw water for Rize (Centre) Municipality drinking water system has been supplied from water intake structures on Poşut and Ilıca Creeks. Raw water taken from water intake structures on the creeks is treated at the water treatment plant constructed within the scope of Andon Group Water Supply Project.

Sanitation and Wastewater: Existing wastewater collection system of Rize Municipality was in 1985. Rize sewerage network was designed and constructed as separate system. Due to the topography, Rize Municipality wastewater collection system is composed of main collector line parallel to coast and sub collectors connected to this main collector. The main collector line starts from Alipaşa Region at the west and ends at the east with existing pre-treatment plant and deep-sea outfall in İslampaşa Region. As the area is plain from the west to the east along the coast, wastewater reaches to sea outfall via 6 pumping stations. According to TurkStat data for the year 2020, the number of municipalities served by the urban sewer system is 16 and the ratio of the municipality population served by the sewerage network to the total municipality population is 81%

Drainage and Stormwater: There are 23 creeks flowing into Black Sea in Rize province. Each stream collects surface waters from city centre and urban area in its own basin and working as natural stormwater drainage system. Stormwater drainage system is composed of the creeks taken into box culvert by DSI and the short lines connecting to those closed sections. All of the creeks at the city centre have closed cross-sections and flowing to Black Sea from the culverts located under State Highway.

Solid Waste: Rize Province is a member of "Trabzon and Rize Provinces Local Authorities Solid Waste Facilities Construction and Operation Association (TRABRIKAB)". Solid wastes in Rize Municipality are currently stored at TRABRIKAB waste sites in Trabzon Province, Sürmene District, Çamburnu Town and Kutlular Village.

Seismicity: According to the Earthquake Risk Map of Türkiye, as seen from Figure 26 ground acceleration value of the Rize is 0.236 g ground acceleration level which can be classified as low risk regarding seismicity.



Source: Rize 2021 Annual Report

Figure 26 Seismicity Map of Rize

Protected Areas: Rize forests are composed of leafy, leafy + coniferous, coniferous tree species starting from the coastal band to the upper forest zone, which is the Alpine zone. The forests in the Kestanetum zone on the coastal band consist of main species such as Alder + Chestnut, and these tree species are mixed with Beech, Hornbeam Spruce. Pure coniferous forests are formed in the upper zones. This tree species is followed by Spruce, and in the Alpine zone, Spruce is accompanied by Fir. These primary tree species are occasionally mixed with yellow pine. Rize province has 106,014.6 ha of productive forests and 73,094 ha of degraded forests.

Within the borders of the province, there is Kaçkar Mountains National Park, which was declared by the Decree of the Council of Ministers in 1994. The total area of the National Park is 51.550 ha. It is 68 km to Rize province and 18 km to Çamlıhemşin district center. 35% of the total area (18.013 ha) is forested.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Rize province are presented in the tables below.

Table 31 Rize Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	344.016	172.187	171.829	88
2021	345.662	173.430	172.232	88
2020	344.359	172.469	171.890	88
2019	343.212	171.571	171.641	88
2018	348.608	174.130	174.478	89
2017	331.041	164.978	166.063	84
2016	331.048	164.727	166.321	84
2015	328.979	163.379	165.600	84
2014	329.779	163.003	166.776	84
2013	328.205	162.918	165.287	84
2012	324.152	160.351	163.801	83

Table 32 Rize Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	344 016	14 716	16 938	- 2 222	-6,4
2020-2021	345 662	15 956	15 605	351	1,0
2019-2020	344 359	13 143	13 290	- 147	-0,4
2018-2019	343 212	15 946	23 534	- 7 588	-21,9
2017-2018	348 608	31 266	16 413	14 853	43,5
2016-2017	331 041	14 561	16 310	- 1 749	-5,3
2015-2016	331 048	15 006	15 604	- 598	-1,8
2014-2015	328 979	15 514	18 936	- 3 422	-10,3
2013-2014	329 779	17 311	17 932	- 621	-1,9
2012-2013	328 205	16 842	15 859	983	3,0
2011-2012	324 152	12 315	13 856	- 1 541	-4,7

According to the TurkStat, the Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Rize, is defined as TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane). According to the data in Table 33, while the population in the Region is approximately 2,095,000, the labor force participation rate is 52.6 percent. Unemployment rate was 8.8 percent in the region in 2020.

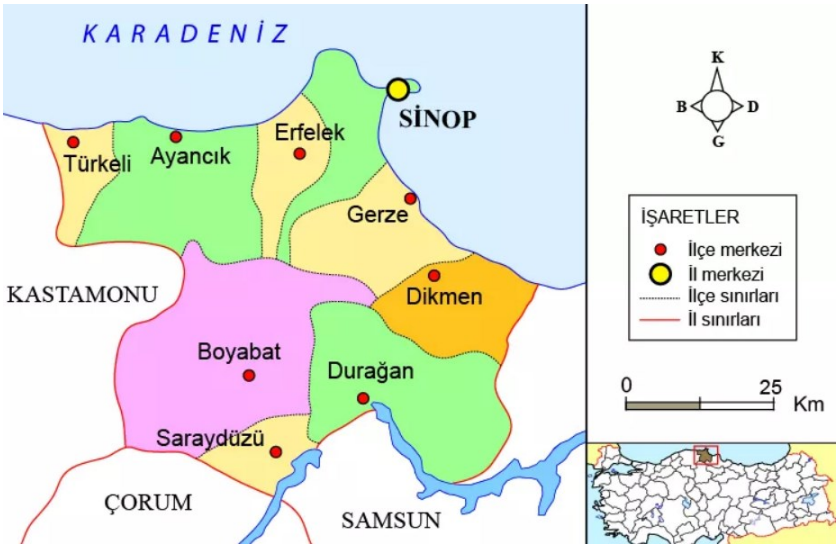
Table 33 Rize Regional Labor Force Indicators for 2020

TR90 (Trabzon, Ordu, Giresun, Rize, Artvin, Gümüşhane)	Total	Female	Male
Population aged 15 and over (Thousand People)	3572	1806	1766
Labor Force (Thousand)	1861	640	1220
Employed (Thousand People)	1588	511	1077
Unemployed (Thousand)	273	129	143
Population not included in the labor force (Thousand People)	1711	1166	546
Labor force participation rate (%)	52,1	35,5	69,1
Employment rate (%)	44,4	28,3	61
Unemployment rate (%)	14,7	20,2	11,8

3.1.8 Sinop

Sinop province is located on the northernmost point of Türkiye along the Central Black Sea Region, between 41- and 42-degrees Northern latitude and between 34- and 35-degrees Eastern longitude. Sinop Province is surrounded by Kastamonu Province in the west, Çorum Province in the southeast and Samsun Province in the east.

The province consists of nine districts including the Sinop Central District. Sinop Central District serves the center of Sinop Province. The area of Sinop province is 5,862 km² with the population of 218,408 and Sinop Central District has the area of 439 km2 with the population of 68,012 (2021) according to the 2021 census results obtained from ABPRS. Sinop Central District covers an area of 7.5% of Sinop Province.



Translation:
Karadeniz-Black Sea; İşaretler-Signs; İlçe sınırları-District boundaries; İlçe merkezleri-District centers; İl sınırları-Provincial boundaries, İl merkezi-City center

Figure 27 Location and Districts of Sinop Province

Water Supply: Within the boundaries of Sinop Municipality, 100% of the urban water supply is provided from the Erfelek Dam. 94% of the supplied water is used for domestic purposes and the remaining 6% is used for industrial purposes.

Construction of Sinop Water Treatment Plant was finalized on 04.05.2013 and transmission lines are commissioned in year 07.09.2013. Sinop water treatment plant capacity is 54.000 m^3/day. It's designed for population projected as 214,642 capita for year 2050 (19.11 hm^3/year). In Sinop Centrum, there are total 8 water service reservoirs which are Korucuk-1, Korucuk-2, Korucuk-3, Pervane, Seyit Bilal 1, Seyit Bilal 2, Zeytinlik and Askeriye. Existing network is constructed in year 2006 and its total length is approximately 140,000 m.

Sanitation and Wastewater: Sinop Municipality sewerage network for the old city Centrum neighbourhoods was constructed in 1970's and it's still in use. Sewerage network for the neighbourhoods surrounding the Centrum was completed in year 2006. Because of topographical reasons, 17 pump stations are used for transfer of wastewater to water treatment plants.

Currently there are two pre-treatment plant followed by deep sea discharge and 1 biological wastewater treatment plants constructed for city Centrum. South Pre-treatment Plant and deep-sea discharge is in operation currently. It's designed for 68,700 P.E with Q_{max}= 267.2 l/s maximum flow. North Pre-treatment Plant is designed for 60,000 P.E with Q_{max}= 247 l/s maximum flow. Although, the construction of pre-treatment plant is finalized, since part of deep-sea discharge is damaged, the pre-treatment plant is not in operation. Akliman treatment plant is constructed with a capacity of 10,000 capita (24.3 l/s).

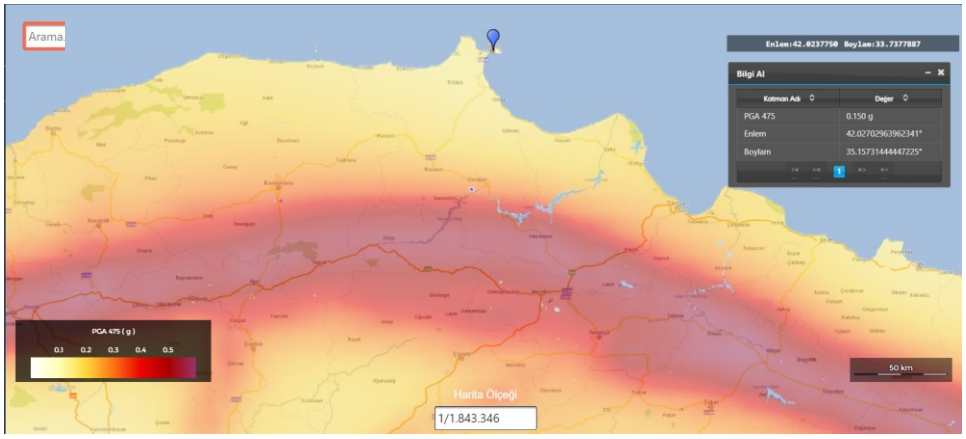
For 2022, the ratio of the population served by the sewerage network in Sinop province to the total municipal population is 98%.

Drainage and Stormwater: Although, Sinop has a rainy climate, since the topography is sloping and the city is located on a peninsula, construction of a stormwater is not required in the past. However, because of the increasing population to prevent the floods in problematic

areas, local solutions are considered. Although the stormwater system is designed as a separate system, some connections made without technical design cause stormwater to enter the system and pumping stations, which causes overloading of the existing sewerage network and pumping stations.

Solid Waste: A solid waste landfill was designed in Year 2005 and commissioned in year 2009 to serve "Municipalities Union of Sinop, Erfelek, Gerze for Solid Waste". The Landfill is approximately 20 km far to Sinop Centrum, in Hacıoğlu village in Meşedağı Region. This Landfill has a total surface of 163,250 m^2 which has 1. Lot storage area of 30,000 m^2 and capacity of 555,000 m^3. Landfill includes 6 gas shafts, leachate collection system, leachate treatment unit and administrative buildings. In year 2014 some small rehabilitation works have been achieved.

Seismicity: According to the Earthquake Risk Map of Türkiye, as seen from Figure 28, ground acceleration value of the Sinop is 0.15 g ground acceleration level which can be classified as low risk regarding seismicity.



Source: Sinop 2021 Annual Report

Figure 28 Seismicity Map of Sinop

Protected Areas: There are several nature parks, wetlands, nature monuments and archaeological sites in the Province[18].

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Sinop province are presented in the tables below.

Table 34 Sinop Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	220.799	109.900	110.899	38
2021	218.408	108.472	109.936	38
2020	216.460	107.689	108.771	37
2019	218.243	108.927	109.316	38
2018	219.733	109.296	110.437	38
2017	207.427	103.071	104.356	36
2016	205.478	101.909	103.569	35
2015	204.133	101.139	102.994	35
2014	204.526	101.304	103.222	35
2013	204.568	101.270	103.298	35
2012	201.311	99.540	101.771	35

[18] https://webdosya.csb.gov.tr/db/ced/icerikler/sinop-ilcdr-2021-20220727103656.pdf

Table 35 Sinop Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	220 799	14 155	11 291	2 864	13,1
2020-2021	218 408	13 211	10 548	2 663	12,3
2019-2020	216 460	10 292	11 070	- 778	-3,6
2018-2019	218 243	12 926	15 642	- 2 716	-12,4
2017-2018	219 733	20 922	9 793	11 129	52,0
2016-2017	207 427	11 015	10 086	929	4,5
2015-2016	205 478	10 190	9 784	406	2,0
2014-2015	204 133	10 059	11 274	- 1 215	-5,9
2013-2014	204 526	10 783	11 950	- 1 167	-5,7
2012-2013	204 568	12 085	9 869	2 216	10,9
2011-2012	201 311	8 277	10 371	- 2 094	-10,3

According to the TurkStat, The Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Sinop, is defined as TR82 (Kastamonu, Çankırı, Sinop). According to the data in Table 36, while the population in the Region is approximately 634,000 people, the labor force participation rate is 50.5 percent. Unemployment rate was 6.6 percent in the region in 2020.

Table 36 Sinop Regional Labor Force Indicators for 2020

TR82 (Kastamonu, Çankırı, Sinop)	Total	Female	Male
Population aged 15 and over (Thousand People)	634	324	310
Labor Force (Thousand)	320	119	201
Employed (Thousand People)	299	110	189
Unemployed (Thousand)	21	9	12
Population not included in the labor force (Thousand People)	314	205	109
Labor force participation rate (%)	50,5	36,8	64,8
Employment rate (%)	47,2	34	60,9
Unemployment rate (%)	6,6	7,6	6,0

3.1.9 Tokat

Tokat is a province located in the Black Sea region of Türkiye. According to the Turkish Statistical Institute, as of 2019 the population of the province is around 301,826. The province covers an area of 8,334 km^2. The capital of the province is also called Tokat. The province is bordered by Amasya to the west, Sivas to the south, Yozgat to the southeast, and Ordu to the east. The climate of Tokat is a continental climate, with cold winters and hot summers. The average temperature in January is around 0 °C, while the average temperature in July is around 20 °C. The economy of the province is primarily based on agriculture, with crops such as wheat, barley, and sunflowers being grown in the area. The province is also known for its livestock breeding and dairy production. The economy of the province is primarily based on agriculture, with crops such as wheat, barley, and sunflowers being grown in the area.

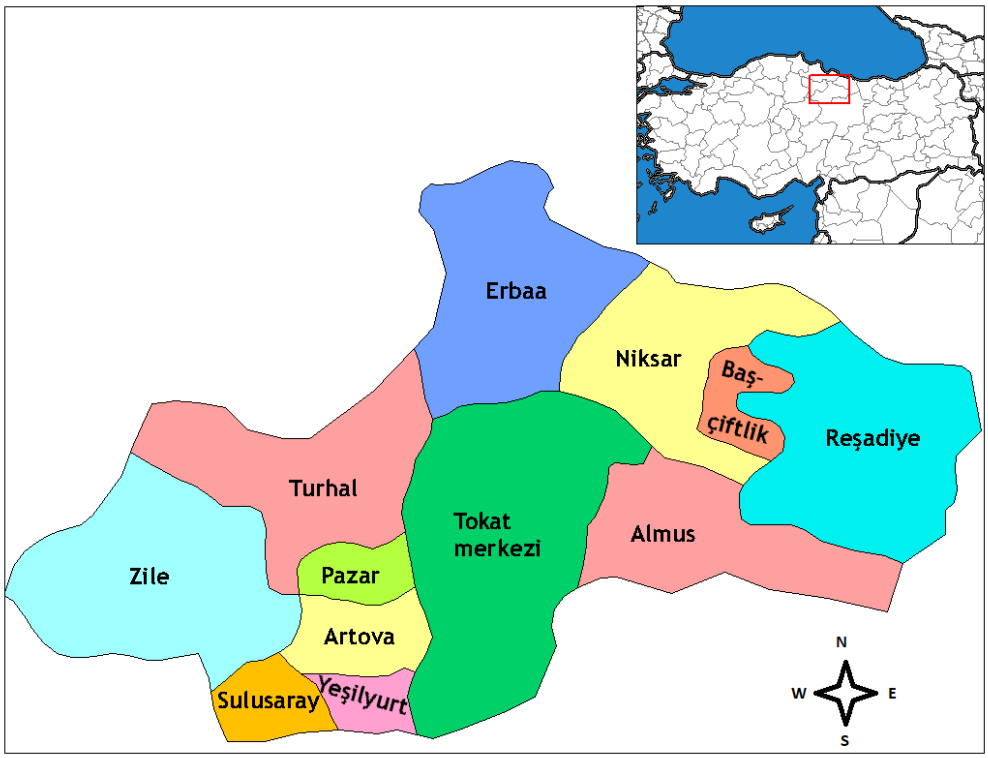


Figure 29 Location and Districts of Tokat Province

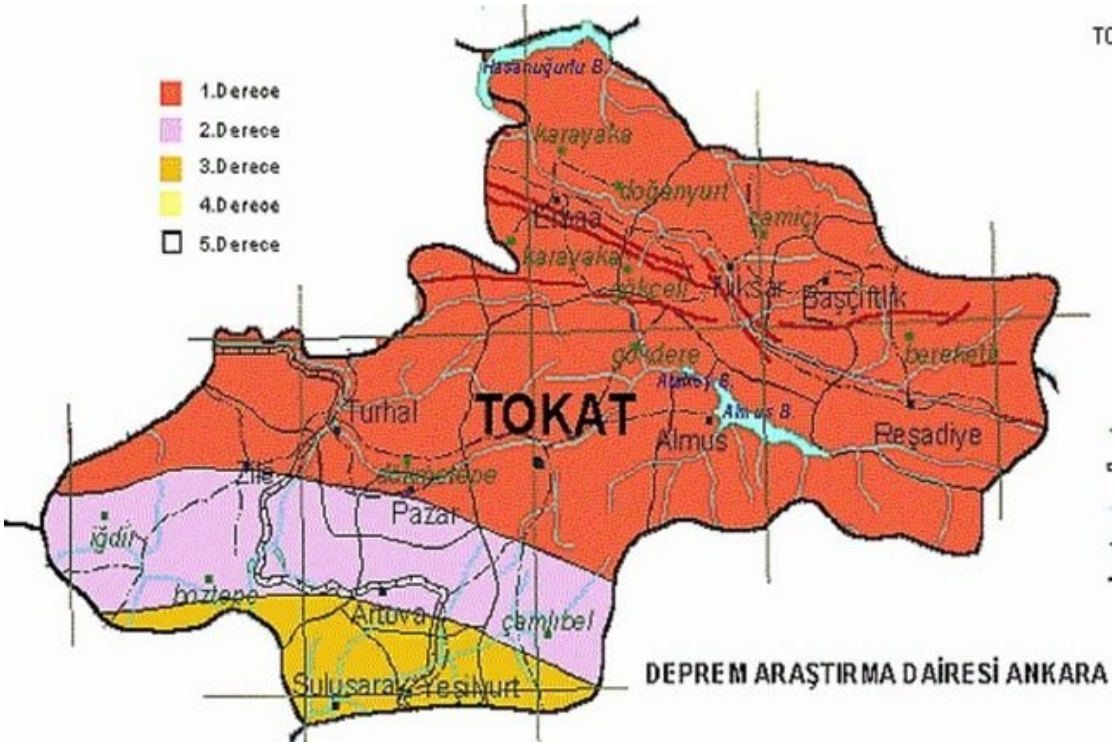
Water Supply: As the Central Municipality, water is mainly supplied from spring waters and underground drilling waters. Approximately 35% of the supplied water is distributed as drinking and utility water, 10% for industrial use, and 13% for agricultural use. 33% of the water produced is lost leakage, 9% is used in mosques, places of worship, fountains and park irrigation, etc. is consumed.

Sanitation and Wastewater: Tokat Central Municipality has a sewage system with a total length of 482.95 km in 2016. The population receiving the sewerage service corresponds to approximately 96% of the total population of 161.169 people. Wastewater Treatment Plant of Central Municipality was put into operation in 2010. 100% of the sewage system is connected to the wastewater treatment plant.

Drainage and stormwater: There are ongoing stormwater construction works in the province.

Solid Waste: The solid waste landfill in Tokat has an existing surface area of 44,770 m^2 and a planned surface area of 134,445 m^2. The total storage volume is currently 783,000 m^3. The landfill serves as 1 lot and the works for the 2nd lot are continuing. Garbage leachate is collected in two leachate collection pools, and the remaining wastewater without evaporation is returned to the lot area in the current situation. In addition, the construction of the wastewater treatment plant planned for the treatment of leachate water has been completed.

Seismicity: The North Anatolian Fault passes approximately 50 km north of Tokat city center.



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1.Derece-1st Degree; 2.Derece-2nd Degree; 3.Derece-3rd Degree; 4.Derece-4th Degree; 5.Derece-5th Degree

Figure 30. Seismicity Map of Tokat Province

Protected Areas: Forest area covers 47.9% of the province. In Tokat Province, there are 2 unique places in the status of Natural Park, namely Ballıca Cave in Pazar District on an area of 485 ha and Zinav Lake Natural Park in Reşadiye District on an area of 401 ha.

Social: Population with gender distribution, population density, internal and external migration, net migration and net migration rate of Tokat province are presented in the tables below.

Table 37 Tokat Population

Year	Total Population	Male	Female	Population Density (km^2)
2022	596.454	296.442	300.012	59
2021	602.567	299.357	303.210	60
2020	597.861	297.311	300.550	59
2019	612.747	304.938	307.809	61
2018	612.646	305.977	306.669	61
2017	602.086	299.519	302.567	60
2016	602.662	299.262	303.400	60
2015	593.990	294.381	299.609	59
2014	597.920	296.867	301.053	59
2013	598.708	297.166	301.542	59
2012	613.990	304.742	309.248	61

Table 38 Tokat Province in-migration, out-migration, net migration, rate of net migration

Period	Total Population	In-migration	Out-migration	Net migration	Rate of net migration
2021-2022	596 454	28 325	35 358	- 7 033	-11,7
2020-2021	602 567	35 555	31 400	4 155	6,9
2019-2020	597 861	24 840	41 746	- 16 906	-27,9
2018-2019	612 747	39 530	39 567	- 37	-0,1
2017-2018	612 646	46 391	41 326	5 065	8,3
2016-2017	602 086	34 735	38 746	- 4 011	-6,6
2015-2016	602 662	36 572	33 380	3 192	5,3
2014-2015	593 990	34 586	40 805	- 6 219	-10,4
2013-2014	597 920	35 891	38 737	- 2 846	-4,7
2012-2013	598 708	26 987	47 071	- 20 084	-33,0
2011-2012	613 990	34 725	31 812	2 913	4,8

According to the TurkStat, The Classification of 2nd Level Turkey Statistical Regional Units, which includes the province of Tokat, is defined as TR83 (Samsun, Tokat, Çorum, Amasya). According to the data in Table 39, while the population in the Region is approximately 2,188,000 people, the labor force participation rate is 50.0 percent. Unemployment rate was 8.3 percent in the region in 2020.

Table 39 Tokat Regional Labor Force Indicators for 2020

TR83 (Samsun, Tokat, Çorum, Amasya)	Total	Female	Male
Population aged 15 and over (Thousand People)	2188	1123	1065
Labor Force (Thousand)	1095	375	720
Employed (Thousand People)	1004	343	661
Unemployed (Thousand)	91	33	59
Population not included in the labor force (Thousand People)	1093	748	345
Labor force participation rate (%)	50	33,4	67,6
Employment rate (%)	45,9	30,5	62,1
Unemployment rate (%)	8,3	8,7	8,1

4 ANTICIPATED ENVIRONMENTAL AND SOCIAL RISKS/IMPACTS OF POTENTIAL SUB-PROJECTS

4.1 Environmental and Social Risk Categorization of Proposed Sub-projects

The proposed Project will respond to the immediate and most critical reconstruction and rehabilitation needs from recent wildfires, floods and earthquakes, while also proactively tackling urgent measures required to build resilience to disaster and climate risks which are growing in frequency and intensity. All interventions under the Project are designed from the start to consider green and sustainable approaches, such as energy efficiency, renewable energy, stormwater harvesting, building resilience to disasters and climate change through structural strengthening of infrastructure and increasing emergency response capacity for fires, floods and other disasters.

Although a list of potential investments is available the project pipeline has not been finalized yet and the locations for all the subprojects have not been determined across all municipalities. When the selection of the sub-projects are finalized, the E&S risk categorization and E&S assessment requirements of sub-projects will be determined jointly by ILBANK and WB teams. As all financing is contingent upon the World Bank's review of ESA documents consistent with the provisions of the Environmental and Social Management Framework (ESMF) and Resettlement Framework (RF), ILBANK will submit viable subprojects for the Bank's prior review. High-risk subprojects will not be eligible for financing under the project. The screening and risk categorization process will be carried out as defined in Section 2.8.4 and Section 5.

4.2 Potential Environmental and Social Impacts and Risks of Proposed Sub-projects

This section identifies the potential environmental and social impacts and risks that could arise from the activities of the sub-projects either during the construction phase or the operational phase.

The highlighted impacts listed in below are broad and envisaged as cutting across most of the sub-projects. The specific potential impacts and risks for each sub-project will be provided in E&S assessment section of its feasibility report.

However, more detailed potential environmental and social risks and impacts of each sub-project will be assessed during the preparation of the specific sub-project ESIA or ESMP. Proposed mitigation measures to avoid, reduce or compensate the impacts of such activities will be identified in these reports.

4.2.1 Cross Cutting Potential Impacts and Risks

Typical project activities to be implemented are broadly categorized into:

- Construction phase, and
- Operation phase.

General, cross-cutting potential environmental impacts, which could be expected for all sub-projects, are presented below.

Construction Phase

Environmental Impacts and Risks

Soil erosion, loss and contamination

The major impact on soil could be the potential topsoil loss at the footprints of the sub-projects where excavation will be carried out. Excavated soil may be exposed to agents of erosion, mostly water and wind. Due to the involvement of heavy machinery during the construction phase, soil contamination may be seen due to accidental oil leakages in the areas. The impacts on soil will be minimal and localized in the areas where construction will take place only. It will be low in significance in terms of magnitude.

The potential impacts of the sub-projects on soil environment are summarized below:

- Soil compaction as a result of topsoil stripping, levelling, excavation and filling activities, work of construction machinery
- Mixing of soil layers as a result of excavation and filling activities
- Soil contamination as a result of oil or fuel leaks or spillage that may result from incidents and unexpected events
- Soil pollution which may occur in case of uncontrolled storage or disposal of solid and/or liquid wastes to be generated within the scope of the sub-project
- Erosion potential due to earthworks

Impacts on Natural Habitats

There might be tree and other vegetation loss during the construction phase for each subproject either to pave way for access roads or for the actual project construction area. The vegetation will be cleared so that the area where the construction work is to take place is clear for the construction work to be performed. The construction works will involve direct land take of productive pastureland and agricultural lands, bush clearing, removal of top soil, excavation and mass haulage. These activities will also expose the land to elements of erosion such as wind and water and thus will trigger the process of land degradation. The impacts may be occurred due to spillage/leakage of chemicals and hazardous materials and poor waste/wastewater handling and disposal. These issues may create negative impacts on ecosystem services from low significance to high significance considering the magnitude (amount of spillage, toxicity level of spilled chemical, etc.) of the impact. The impact of project activities on ecological components is related to the size of the impact and the vulnerability of the recipient.

Dust and exhaust gases emission and noise pollution

During construction, there will be material handling and movement of construction equipment at the sub-project sites. In addition to the fugitive dust emissions, there will be exhaust emissions of heavy construction machinery. Primary emissions from exhaust gases of vehicles are NO2, CO, HC, SO2 and PM. Also, bio-aerosols, and odors, could cause deterioration of air quality during waste collection and transportation. The impacts can be considered of low in terms of magnitude, duration, and spatial extent, as it is localized and occurs only during the construction phase.

Impacts associated with water, energy and raw materials use

Employees' needs and dust suppression will create water supply requirement. Construction phase activities will require resource consumption such as concrete, reinforcement, structural steel, ferrocement, prestressed concrete, energy etc. Civil works at the project site could be a risk of contaminating the clear river water with cement and muddy waters or soil movement. Increase in suspended particles due to construction works, risk of human contamination from construction camps and production of wastewater originated from the workers might affect the surface water and groundwater quality especially where the sub-projects are close to natural water bodies. This impact is of low in significance in terms of magnitude and spatial extent. It could occur only during construction phase and rainy period.

Solid Waste

During construction phase of the Project, activities such as vegetation clearance, levelling, construction and installation of main operation and auxiliary units, procurement, transportation and assembly of units and equipment will be carried out. Solid waste types expected to be generated within the scope of these activities are municipal wastes, packaging wastes of system equipment (e.g. wood, cardboard, plastic, etc.), hazardous wastes, special wastes, excavation and construction wastes (e.g. scrap metal, wood, concrete waste, etc.), and waste system equipment (panels, cables, electronic components). Hazardous and special wastes may contain chemical substances (e.g. paint, solvent) or packaging materials and cloths contaminated with oils, waste oils resulting from operation and maintenance of machinery and vehicles, solvents, accumulators, batteries, filters, machine parts.

Impacts associated with Asbestos Cement Pipes

During construction works encounter of asbestos pipes might happen which may cause potential impacts due to inhalation from asbestos containing material (lung disease, mesothelioma).

Social Impacts and Risks

Occupational Health and Safety and Labor

Construction works can cause incidents and accidents that may threaten the health and safety of workers if measures are not taken proactively.

Potential health and safety risks during the construction have been listed below.

- Working at height,
- Moving objects,
- Slips and trips,
- Noise vibration and exposure to dust,
- Materials handlings,
- Unintended collapse,
- Asbestos,
- Electricity,

- Traffic related risks due to increased traffic,
- Associated risk of occupational accidents, injuries and diseases, and
- Hazards to workers due to unhygienic or unsanitary living conditions.

Details and area specific risks will be obtained during site studies and will be assessed under social impact and risks sections of respective ESA documents. Mitigation measures and occupational health and safety issues are managed in line with the Labor Management Procedures of the Project which is in compliance with the national legislation, Occupational Health and Safety Law (Law No: 6331, Date of Enactment: 20/06/2012), World Bank ESS2 and World Bank Group General Environmental Health and Safety Guidelines.

Community Health and Safety

Project should bring benefits to the community in terms of improved access to municipal services which in turn may enhance local business opportunities and new infrastructure opportunities in the region. However, there may also be impacts arising from accidents, structural failures, release of hazardous materials, impacts on water quality and quantity, pressure on existing social infrastructure and SEA/SH risk due to labor influx, construction impacts on natural resources, exposure of disease. The Project identified the following potential Community Health Safety (CHS) impacts due to the construction phase.

- Speed and road damage of transportation and traffic; increased traffic and risk of road traffic accidents and injuries,
- The emergency situations due to contextual risks (i.e., flooding, landslides, earthquakes, fires etc.)
- Access to clean and sustained water sources,
- Damage to existing underground public utility cables and pipes and disruption of services,
- Noise and vibration,
- Increased demand on existing community health and sanitation infrastructure due to influx of temporary workers & camp followers,
- Threat to community culture, safety and security associated with presence of construction workers and business opportunists,
- Risk of communicable diseases such as sexually transmitted diseases (STDs) due to labor influx and interaction of temporary workers with the community and increased SEA/SH risk,
- Effect of the construction on the accessibility of the community to their houses, business, schools, etc.,
- Effect of the construction on potential vulnerable groups, and
- Impacts on potential waste pickers in the project site (if any present).

Traffic

Traffic congestion and temporary interruptions from construction phases of the investments and which could potentially cause annoyance, disruption, health and safety impacts, as well as economic impacts. The use of heavy moving construction vehicles and machineries in project

sites is generally known to cause traffic reducing movement and flow of vehicles. This is likely to cause increased frequency and severity of accidents.

Loss of Land and Livelihoods

The existing land use of the project area will be affected by the construction of access roads, construction camps, opening up of material sites and quarry sites among others. These will scar the land, cause vegetation loss leading to soil erosion. In the local communities, project-affected people may lose their land, assets and means of livelihood due to construction needs of the investments. These impacts may comprise loss of farmland, grazing land, businesses and structures among people with formal or informal ownership of the affected lands. Potential impacts and risks of the sub-projects regarding loss of land and livelihoods will be managed and monitored in accordance with the Resettlement Framework of the Project which is in compliance with the national legislation and requirements of ESS5.

Vulnerable groups

Certain vulnerable groups such as disabled people, children or elderly people, certain minorities and groups with livelihood dependencies in the project regions might be affected during the construction phase. An environmental and social impact assessment to be conducted at the subproject level will identify vulnerable groups relevant to respective sub-projects.

Sub-project specific ESIAs/ESMPs along with the SEPs will consider any impacts in association with the daily living patterns of potential vulnerable groups (i.e school aged children commuting for school) that may be generated due to civil works. Similarly, measures will be in place to prevent labor influx related risks on communities, in particular women, residing in the vicinity of the proposed sub-project sites. The RPs may include measures, as required, to provide assistance to vulnerable people affected by temporary or permanent physical or economic displacement, including assistance in moving, allowances, job placement, training, etc.

Grievance Management and Stakeholder Engagement

As part of the process of identifying risks and impacts, it is highly important to manage the grievances of the stakeholders on the E&S performance of the project and workers' grievances on their working conditions. Project specific Grievance Mechanism will be in place during the construction and operation phases of the project where stakeholders and other interested parties can submit grievances and concerns.

For managing the engagement with the stakeholders, the Stakeholder Engagement Plan (SEP) to be implemented at the sub-project level has been prepared and this SEP includes initial stakeholder identification for the Project, analysis of interest/influence of the stakeholders with the Project, details of consultation methodologies, activities carried out to-date and those planned for the future of the Project, details of the process for managing stakeholders' concerns and grievances, and explains how the stakeholder engagement process will be recorded, monitored, evaluated and reported to respective sub-projects.

Operation Phase

Environmental Impacts and Risks

Solid Waste

Municipal wastes as well as hazardous and special wastes are expected to generate. Solid waste residuals generated by water/wastewater treatment include sludge generated in treatment process, used filtration membranes, spent media and miscellaneous wastes. There may be waste generation resulting from damaged, malfunctioned or end-of-life equipment and material that could be replaced or controlled during maintenance and repair activities to be performed periodically or in case of a breakdown. Also, procurement of new equipment, pieces and other needed materials (such as flocculants, disinfectants etc.) will result generation of packaging waste. There may be waste oil due to the oil change of equipment.

Air Quality, Odor and Noise

The impacts may be due to emissions of hydrogen sulfide, methane, ozone, gaseous or volatile chemicals associated with WWTPs. Due to improper operation of water and wastewater treatment plants, odor problems may occur. If there is a settlement nearby, there may be some complaints. Noise may also be a problem arising from pumping stations and treatment plants. Odor and noise problems might also occur during the operation of sanitary landfills, particularly due to improper operation practices.

Soil and Water Pollution

Leakage of chemicals used in treatment plants to soil or water sources in the vicinity may cause pollution. Improper management of excess sludge also causes negative impacts on the ambient media. During the operation of sanitary landfills, wastes spilled from trucks can pollute roads and the environment. Potential impacts from the uncontrolled flow of leachate into the groundwater might include degradation of groundwater quality, soil contamination and adverse impacts to surface water quality. If not re-used, treated wastewater can be discharged to the sea; rivers; large surface water bodies; smaller, closed surface water bodies; and wetlands and lagoons. The treatment should be consistent with effluent water quality goals based on the assimilative capacity and the most sensitive end use of the receiving water. In case projects involve recourse to pest management measures, the integrated pest management (IPM) or integrated vector management (IVM) approaches using combined or multiple tactics will be preferred to minimize and manage the related risks and impacts in line with ESS 3 and in compliance with the EHSGs.

Climate Change

Methane gas as a GHG emission may emit to the atmosphere from landfill sites and might contribute to the climate change. Similarly, treatment sludge generated from wastewater treatment plants may cause an adverse effect on climate change issues.

Social Impacts and Risks

Occupational Health and Safety and Labor

Operators of water and wastewater treatment plants and sanitary landfill might be exposed to variety of hazards during the operation and maintenance. There may be fire and explosion risks due to landfill gas. The occupational health and safety impacts such as accidents and injuries, chemical exposure, noise and vibration exposure and exposure to pathogens and vectors. The community health and safety impacts such as visual, dust and odor problems as well as scavenging related impacts and physical, chemical and biological hazards. Sewage sludge may also contain pathogenic bacteria, viruses, protozoa, parasites, and other microorganisms that can cause disease. Land application and surface disposal of untreated sewage sludge create a potential for human exposure to these organisms through direct and indirect contact.

Reducing the impact of vector-borne disease on the long-term health of workers is best accomplished through implementation of diverse interventions aimed at eliminating the factors that lead to disease as referred in WBG General EHS Guidelines.

Traffic

Trucks carrying sludge from treatment plants and waste to the landfills can readily create significant traffic problems, increased air pollution, roadway deterioration, etc.

Post physical and economic displacement

Compensation for land acquisition alone does not guarantee the restoration or improvement of the livelihoods and social welfare of displaced persons and communities. Restoration and improvement of livelihoods often includes many interconnected assets that may include access to land, marine and aquatic resources, access to social networks, access to natural resources as well as employment.

Attention to vulnerable groups

As part of the process of identifying risks and impacts, it is highly important to identify individuals and groups that may be directly and differentially or disproportionately affected by the project and project outcomes because of their disadvantaged or vulnerable status. It should be proposed and implemented differentiated measures so that adverse impacts do not fall disproportionately for the individuals or groups who are disadvantaged or vulnerable, and they are not disadvantaged in sharing development benefits and opportunities.

Grievance Management and Stakeholder Engagement

As part of the process of identifying risks and impacts, it is highly important to manage the grievances of the stakeholders on the E&S performance of the project and workers' grievances on their working conditions. Project specific Grievance Mechanism will be in place during the construction and operation phases of the project where stakeholders and other interested parties can submit grievances and concerns.

For managing the engagement with the stakeholder during the operation phase, a similar stakeholder engagement process described in the project's SEP will be implemented during the operation phase of the Project.

4.2.2 Mitigation

A general mitigation plan for eligible sub-projects covering possible impacts of the related activities is given in Table 40. These should be taken into consideration in the preparation of site specific ESIAs/ESMPs for the sub-projects.

The recommended sub-management plans to be prepared are provided in Annex-2C.

Table 40 Generic Mitigation Plan for Eligible Sub-projects

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Traffic	Interruptions in transport and Transport Safety	▪ Positioning clear warning and information signs around the construction zone. Imposing time constraints (e.g. 7AM to 5PM) for works. Considering disabled, women, children and people with special needs while locating and marking alternative roads (roundabouts) ▪ Traffic Management Plan will be prepared for all construction sites	Included in construction costs	Contractor
Construction	Air Quality	Dust emissions	▪ Close or cover trucks for the transport of materials. Spraying water on the ground where dust is generated, disposing of excess material and cleaning the location upon the finalization of works. Protective covers or curtains for zone where the largest amounts of dust are generated. ▪ Air Quality Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Air Quality	Exhaust gases from equipment and vehicles	▪ Restricting works during daytime (e.g. 7AM to 5 PM). ▪ Air Quality Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Noise and Vibration	Increase in noise and vibration levels	▪ Restricting works during daytime (e.g. 7AM to 5PM). Establish schedules and/or other forms of specific limitations for works. ▪ Noise and Vibration Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Spill outs of fuel, lubricant, antifreeze etc. may result in contamination	▪ Periodic examination of the condition of vehicles and other machinery and equipment used in the course of the performance of works. Compliant warehousing of fuel and lubricant, and in case of a spill out, isolation and cleaning of the location. ▪ Soil Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Topsoil loss, deposit of excavated soil, erosion, landslides or sedimentation may occur	▪ The provisions of the Regulation on the Control of Excavation Soil, Construction and Demolition Wastes shall be complied during land preparation and construction phase of the Project. ▪ Soil Management Plan will be prepared if required	Included in construction costs	Contractor
Construction	Soil Environment	Damage to road cover	▪ Public roads and streets will be backfilled and recovered	Included in construction costs	Contractor
Construction	Water Resources and Wastewater	Water Quality and domestic wastewater generation	▪ Discharge of wastewater, residues or other waste into groundwater or into surface water will be avoided. ▪ Water Resources Management Plan will be prepared if required.	Included in construction costs	Contractor

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Water resources	Periodic interruptions in water supply to neighboring population	▪ Scheduling interruptions in water supply in cooperation with the Water Supply Company and informing the population with the objective of minimizing the negative effect on the population. ▪ Water Resources Management Plan will be prepared if required.	Included in construction costs	Contractor and Water Supply Company
Construction	Ecosystem	Damage to trees and vegetation may onset in the course of construction	▪ Minimizing the areas requiring the removal of vegetation, and upon finalization of works, replace/restore removed vegetation. Special measures if needed to avoid damage to protected trees or species. ▪ Biodiversity Management Plan will be prepared if required.	Included in construction costs	Contractor
Construction	Cultural Heritage	There is a possibility of discovering artifacts or other cultural and historical items of value	▪ Discontinuing all works. Contact responsible authorities. Organizing all necessary measures to protect the location. No works to proceed until official notification is received. ▪ Chance Finds Procedures will be prepared prior to construction works.	Included in construction costs	Contractor
Construction	Waste Management	Excavated and removed material is harmful to environment if it is not disposed of adequately. Especially if the material or waste is dangerous or might be dangerous (such as, for example, asbestos and cement pipes, pieces of profiles etc.)	▪ All non-waste and excavated material generated in the course of construction has to be deposited in the landfill and in a manner that is not harmful to the environment. Stone, soil and other materials that may be reused shall be utilized in the procedure of project realization. Materials that cannot be used and hazardous waste should be removed in compliance with entity level regulations. ▪ Waste Management Plan (including municipal, hazardous and non-hazardous wastes) will be prepared if required ▪ Specific precautions will be determined for managing Asbestos Containing Materials in the site-specific ESA documents i.e. asbestos management plan will be prepared for safe handling and effective disposal of asbestos as required by the WBG EHSG on asbestos management	Included in construction costs	Contractor
Construction	Waste Management	Transportation management of waste (both hazardous and non-hazardous) to the appropriate landfills/disposal sites	▪ Wastes generated should only be temporarily stored on site in the temporary storage area that is maintained/equipped with appropriate precautions according to the type of wastes, when needed, and wastes should be transported to licensed disposal facilities with licensed transport vehicles appropriate to the type of waste. Information related to the operations in this context should be recorded and records should be kept. ▪ Waste Management Plan (including municipal, hazardous and non-hazardous wastes) will be prepared if required	Included in construction costs	Contractor

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Community Health and Safety	Access to common resources or services may be interrupted due to construction works	▪ Time schedule for all construction works should be communicated with local communities prior to construction. Alternative and secure means to access resources and services should be introduced. ▪ Community Health and Safety Management Plan will be prepared if required.	Included construction costs	Contractor
Construction	Community Health and Safety	Community health and safety	▪ The construction area should be fenced to prevent trespassing. Necessary signage and lighting equipment shall be established. Traffic safety shall be established through appropriate management measures. Community should be informed about transfer of large machinery and equipment. If necessary, emergency drills should be implemented with the participation of the emergency authorities in the area. ▪ Design and the construction works of the projects should be in line with the WBG guidelines including the life and fire safety provisions.	Included in construction costs	Contractor/ Municipality
Construction	Labor	Labor Influx (not all sub-projects may have labor influx issues, however projects with long term construction works will require camps sites to be established to accommodate construction workers. Conflicts may arise between communities and workers)	▪ For sub-projects that may have labor influx issues, camp sites should be arranged to properly accommodate workers and meet their needs within the camp site. Workers must be provided with relevant trainings as needed. Workers will sign and receive a training on the Code of Conduct. Nearby communities will be consulted regarding the locations of the work camp.	Included in construction costs	Municipality/Contractor
Construction / Operation	Grievance Mechanism	Concerns and complaints of stakeholder and workers	▪ Consultation on risks and adverse impacts of the project and create opportunities to receive affected communities view on project ▪ Establishment of grievance mechanism to collect and provide timely resolution of affected communities concerns and grievances regarding of the client's environmental and social performance. ▪ Transparent public disclosure to inform each phase of the project through website, notice boards, telecommunication tools and public meetings. ▪ Establishing well designed and structured public questionnaire to receive feedback from affected communities	Included in project budget	Municipality Contractor Operator

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Construction	Gender Based Violence/Sexual Exploitation and Abuse/Sexual Harassment (GBV/SEA/SH)	GBV/SEA/SH	▪ Information on GBV/SEA/SH service providers should be shared during public consultations. The Project GM should be designed to receive GBV/SEA/SH grievances anonymously and ensure they are addressed in a confidential and sensitive manner. Relevant Project staff should be trained in order to refer GBV survivors to existing identified service providers and ensure that they are provided services promptly. The Code of Conduct for workers will include the prohibition of GBV/SEA/SH.	Included in construction costs	Contractor/ Municipality
Construction /Operation	Occupational Health and Safety	Construction works can cause accidents that may threaten the health and safety of workers if measures are not taken	▪ The workers shall be informed about job descriptions, responsibilities and risks about OHS. The workers will be provided working conditions in accordance with the Labor Law (such as wages, working hours, payment for overtime hours, period of rest, social security benefits). The workers will be provided with the necessary personal protective equipment and information on works and occupational safety through regular trainings. Before the construction works starts, a Risk Assessment Report shall be prepared for all works to be carried out and necessary measures shall be taken to avoid related risks. "Emergency Response Plans" shall be prepared for possible accidents and emergency situations (i.e., fires, earthquakes, floods, etc.) events and emergency teams shall be established and drills and training shall be carried out in line with the emergency scenarios. ▪ OHS Management Plan will be prepared to outline all the actions and procedures for ensuring OHS for all workers including camp site requirements with roles and responsibilities of camp management staffs, such as; ▪ Hygienic conditions must be provided the areas such as dining hall, dormitory and resting areas which are included in the social lives of the employees. ▪ Serving food employees must wear bonnets, masks and gloves in the cafeteria, porter examination should be performed quarterly basis. The monitoring system will be established to follow up the system. ▪ Risk Assessment and Emergency Response Plan for camp areas will be coordinated and will be shared with the employees regularly. Meeting points will be identified and emergency routes will be clearly marked on a safety board in the camp. At least one time in a year, emergency drill will be realized at the camp and learnings after the drills will be shared with the employees.	Included in construction costs	Contractor/ Municipality

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
			▪ The living containers in which dormitories, kitchens and dining halls are located must be grounded and lightning rod equipment must be provided. ▪ The electrical wiring inside of these containers should meet the standards, and residual current relays should be present in the electrical panels. ▪ Steel gloves should be provided for the workers who use hand tools such as sharp-edged knives in the cafeteria, and equipment should be used instead of hand tools whenever possible. ▪ The kitchen and dining hall should be checked every day, and any structural and behavioral inconsistencies should be eliminated. ▪ Adequate ventilation should be provided in dormitories and should be checked daily. ▪ Washing machine and dryer should be provided for dirty laundry and work clothes. ▪ Fire extinguishers should be available in social living areas, and sufficient number of garbage containers should be provided for the wastes. ▪ Drinking water control should be done every 3 months. ▪ Specific precautions will be determined for working with Asbestos Containing Materials in the site specific ESA documents		
Construction / Operation	Vulnerable Groups	Identification of vulnerable groups impacted by the sub-projects	▪ Certain groups that may be considered vulnerable (people with disabilities, waste pickers, elderly, and certain groups with livelihood dependencies in the project region) should be identified. Their engagement in project planning and implementation should be ensured through consultations as required in the Stakeholder Engagement Plan. ▪ Certain vulnerable groups (i.e. waste pickers) might be earning income from the project affected area/land. Ensure that they are informed about the project and can continue to generate income or are assisted in finding similar or other livelihoods if they have to relocate from the areas where they are working	Included in ESA study costs	Municipality
Construction / Operation	Citizen Engagement	Lack of effective engagement of the citizens will reduce the positive impacts and benefits of the project	▪ Citizen engagement activities to facilitate effective two-way engagement among stakeholders, including Turkish citizens and other nationalities, municipalities, and SKIs, will seek to identify the needs and priorities of beneficiary groups to improve access to effective municipal services.	Included in project budget	Municipality

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
Pre-Construction / Construction / Operation	Involuntary Resettlement	Negative impacts on livelihoods of project affected people	▪ Design works to minimize the involuntary land take ▪ Preparation of a Resettlement Plan ▪ Compensate losses resulted from involuntary resettlement, including economic displacement due to land acquisition for all shareholders (including formal, informal, renters, etc.) ▪ In case of people with special needs (elderly, women, children etc.) or disabled who could be negatively impacted from the construction, ensure that temporary measures for accessibility are put in place	Included in resettlement budget	Municipality
Construction / Operation	Contextual risks	Flooding, landslides, earthquakes	▪ Avoidance of vulnerable locations when selecting sites for subprojects	Included in project budget	Municipality
Operation	Water Resources	Poor operation may result in inadequate water quality released to the general population	▪ Establish emergency procedures for notification and alerting the public	Included in the operating costs	Operator
Operation	Chemicals	Environmental safety hazards from chlorine storage and use	▪ Establish continuous chlorination control and monitoring, chlorination equipment maintenance procedures, storage procedures, and emergency response procedures. Chlorination plant should have ambient monitoring and locked. Accessible only to authorized staff.	Included in the operating costs	Operator
Operation	Chemicals	Chlorine and other process chemicals leaks and spills	▪ Establish safe delivery/storage/handling procedures in accordance with material safety data sheets (MSDSs). Immediately contain and clean-up any spilled material.	Included in the operating costs	Operator
Operation	Sludge Management	Process sludge (filtration and flocculation processes)	▪ Sludge to be disposed on site approved by municipality. ▪ Sludge Management Plan will be prepared if required.	Included in the operating costs	Operator
Operation	Waste Management	Transportation management of waste (both hazardous and non-hazardous) to the appropriate landfills/disposal sites	▪ Wastes generated should only be temporarily stored on site in the temporary storage area that is maintained/equipped with appropriate precautions according to the type of wastes, when needed, and wastes should be transported to licensed disposal facilities with licensed transport vehicles appropriate to the type of waste. Information related to the operations in this context should be recorded and records should be kept.	Included in the operating costs	Operator
Operation	Occupational Health and Safety	Training	▪ The workers shall be informed about job descriptions, responsibilities and risks about OHS. The workers will be provided working conditions in accordance with the Labor Law (such as wages, working hours, payment for overtime hours, period of rest, social security benefits). The workers	Included in the operating costs	Operator

Phase	Topic	Risk	Mitigation Measures	Costs	Institutional Responsibility
			will be provided with the necessary personal protective equipment and information on works and occupational safety through regular trainings. Before the operation, a Risk Assessment Report shall be prepared for all works to be carried out and necessary measures shall be taken to avoid related risks "Emergency Response Plans" shall be prepared for a possible accident and emergency, and emergency teams shall be established, and drills and training shall be carried out in line with the emergency scenarios. The workers shall be made aware of accessible GM.		
Operation	Community Health and Safety	Community health and safety	▪ The operations should be engaged without posing risk to the community safety. The facility should be fenced to prevent trespassing. If necessary, emergency drills should be implemented with the participation of the emergency authorities in the area.	Included in the operating costs	Operator
Operation	Community Health and Safety	Community conflict	▪ Consultation on risks and adverse impacts of the project and create opportunities to receive affected communities view on project ▪ Establishment of grievance mechanism to collect and provide timely resolution of affected communities concerns and grievances regarding of the client's environmental and social performance. ▪ Transparent public disclosure to inform each phase of the project through website, notice boards, telecommunication tools and public meetings. ▪ Establishing well designed and structured public questionnaire to receive feedback from affected communities	Included in the operating costs	Operator

5 ENVIRONMENTAL AND SOCIAL MANAGEMENT PROCESS

ILBANK, as the implementing agency, is responsible for the overall implementation of the project through its PMU that will have day-to-day responsibility for project management and support, including ensuring that project implementation is compliant with the World Bank's ESF, particularly the relevant ESSs; the World Bank Group's EHS Guidelines; WHO Covid-19 Guidelines; and this ESMF. A certain process needs to be followed to determine the environmental and social aspects of subproject activities. The stages of this process are defined below. A detailed overview of ILBANK's capacity in environmental and social management and assessment of the ILBANK's labor and working conditions are explained in Section 6.

Step 1: Screening

Environmental and social assessment starts with the Environmental and Social (E&S) Screening of proposed sub-projects. The main purpose of the environmental and social screening is to get relevant concerns addressed in the implementation phase of the project. E&S Screening will determine whether proposed sub-project will require an ESMP or a full scale ESIA. This process will cover an ineligibility assessment and environmental and social risk categorization of a subproject in line with the ESF. First, the sub-projects will be screened through the Exclusion List given in Section 1.4.

The proposed sub-projects will be screened by ILBANK PMU, in consultation with the World Bank by using the screening forms provided in Annex 1-A of this ESMF. Outcomes of the Turkish EIA Process is another source to identify the impact significance of the project as well as to identify the sensitivity level for the Project Area of the Influence (e.g. presence of natural habitats, projected areas etc.). In this process, it will be Municipalities'/Utilities' responsibility to hire the consultancy services for the preparation of sub-project feasibility reports, including an initial assessment of E&S risks to reach more informed decisions.

Environmental and social risk classification takes into account relevant potential risks and impacts, such as:

- the type, location, sensitivity and scale of the Sub-Project.
- the nature and magnitude of the potential E&S risks and impacts, including impacts on Natural Habitats; the nature of the potential risks and impacts (e.g. whether they are irreversible, unprecedented or complex); resettlement activities; presence of vulnerable groups/people; and possible mitigation measures considering the mitigation hierarchy;
- the capacity and commitment of the Sub-Borrower to manage such risks and impacts in a manner consistent with the ESSs, including the country's policy, legal and institutional framework; laws, regulations, rules and procedures applicable to the investment sector; the technical and institutional capacity of the Sub-Borrower; the Sub-Borrower's track record of past project implementation; and the financial and human resources available for management of the Sub-Project; and
- other areas of risk that may be relevant to the delivery of E&S mitigation measures and outcomes, depending on the specific Sub-Project and the context in which it is being developed, including the nature of the mitigation and technology being proposed,

considerations relating to domestic and/or regional stability, conflict or security. The outcome of the screening process is to categorize the sub-project in terms of its environmental and social risks.

Considering potential environmental impacts and their significance, proposed sub-projects will be categorized in four levels: (i) High Risk, (ii) Substantial Risk, (iii) Moderate Risk, (iv) Low Risk. In accordance with the screening procedure, the sub-projects with High-Risk Category will be ineligible for funding. ILBANK PMU will consult the World Bank's E&S team for final decision of risk categorization (Substantial, moderate, low) of the sub-projects.

Step 2: Environmental and Social Assessment

The appropriate ESA documents to be prepared is decided upon the mutually agreed E&S risks. The type and content of the environmental and social assessment that fulfil the ESSs will depend on the category and special issues associated with the project as discussed above and summarized in table below.

ILBANK will guide the municipalities regarding the environmental and social assessment document to be provided (as detailed in this document).

In cases where several separate investments (components) constitute a subproject, all of the components will be evaluated as a single subproject. The ESIA/ESMP prepared for such subproject should combine all the components to be implemented under the subproject. However, the ESIAs/ESMPs of the activities may be prepared separately and works may commence at separate times as long as the components are independent of each other in terms of impact on the social and natural environment. When in doubt, ILBANK will consult with the World Bank environmental and social specialist assigned to the project.

Municipalities/Utilities will be responsible for the preparation of the ESIAs/ESMPs, SEPs and RPs/ex-post social audits, and share these with the ILBANK and WB as required. The type and content of the environmental and social assessment that fulfil the ESSs will depend on the risk category and special issues associated with the sub-project as discussed above. A part of the information and analysis may already be available in the EIA or PIF document depending on whether the proposed subproject is classified as either an Annex I or and Annex II project according to the Turkish EIA Regulation. Then, according to the category of the sub-projects (Substantial, Moderate, Low), the Turkish PIFs and EIAs could be referred while preparing the ESIAs and ESMPs. **Completing a satisfactory ESIA/ESMP is the responsibility of the concerned** Municipalities/Utilities**.** They may fund the cost of the EISA/ESMP either from the municipality's own resources or from the sub-project loan. The cost estimates of the site specific ESIAs/ESMPs will provide information about the responsible agency and relevant costs for each mitigatory/monitoring activity.

ILBANK will perform an overall quality assurance function to confirm that the documents prepared meet the applicable World Bank and national legislative requirements. In reviewing an ESIA or ESMP, ILBANK will also confirm that it is clear, feasible and appropriate.

Substantial Risk Sub-Projects

As per the procedures provided in the Table 41 below, for Substantial Risk Category subprojects, whether Annex 1 or 2 according to Turkish EIA Legislation, a full scale ESIA in line with the applicable Turkish legislation and WB ESF will be required. This will include site-specific information including but not limited to baseline information (e.g. environmentally sensitive areas, or need to better define and understand potential issues, brief description of impacts specifying well defined mitigating measures and adopting accepted operating practices and monitoring), the methodology for impact assessment, analysis of alternatives, and analysis of respective environmental and social impacts in accordance with the methodology, mitigation and monitoring plans and roles and responsibilities. The indicative structure of an ESIA is provided in Annex 2 of this ESMF.

Table 41 Procedures for Substantial Risk Sub-Projects

Sub-Project Phase	Procedure	Responsible Part
Project Identification /Prefeasibility	Environmental and Social Screening of sub-project (see Annex 1 of this ESMF)	ILBANK
Feasibility Study/Design	Prepare ESIA	ILBANK, Municipality
	Public consultations (as per SEP)	Municipality
	Implement RF and if required, prepare RP	Municipality
Detailed Design & Tendering	Ensure mitigation measures (as per ESIA) are included in design	ILBANK, Municipality
	Ensure ESIA and LMP aspects are included in Bidding Documents	ILBANK, Municipality
	Prepare and implement Chance Find Procedure (CFP) for Cultural Heritage	Municipality
Construction Works	Implement and monitor ESIA, SEP, RP/Ex-post (if needed), LM Plan and CFP (if necessary)	Municipality
	Update ESIA (and ESMP) as required	Municipality
	Prepare and implement site specific sub-management plans	Contractors

Moderate Risk Sub-Projects

As per the procedures provided in the Table 42 below, for Moderate Risk Category sub-projects, a site-specific ESMP will be required. The ESMP should clearly lay out: (a) the measures to be taken during both construction and operation phases of a sub-project to eliminate or offset adverse environmental and social impacts or reduce them to acceptable levels; (b) the actions needed to implement these measures; and (c) a monitoring plan to assess the effectiveness of the mitigation measures employed. The indicative structure of an ESMP is given in Annex 2.

Table 42 Procedures for Moderate Risk Sub-Projects

Sub-Project Phase	Procedure	Responsible Part
Project Identification /PreFeasibility	Environmental and Social Screening of sub-project (see Annex 1)	ILBANK
Feasibility Study/Design	Prepare an ESMP	ILBANK, Municipality
	Public consultations (as per SEP)	Municipality
	Implement RF and if required, prepare RP	Municipality
Detailed Design & Tendering	Ensure mitigation measures (as per ESMP) are included in design	ILBANK, Municipality
	Ensure ESMP and LMP aspects are included in Bidding Documents	ILBANK, Municipality
	Prepare and implement Chance Find Procedure for Cultural Heritage	Municipality
Construction Works	Implement and monitor ESMP, LMP and CFP (if necessary)	Municipality
	Update ESMP as required	Municipality
	Prepare and implement site specific sub-management plans	Contractors

Low Risk Sub-Projects

A project is classified as Low Risk if its potential adverse risks to and impacts on human populations and/or the environment are likely to be minimal or negligible. Therefore, Low Risk Category sub-projects, with few or no adverse risks and impacts and issues, will not require further E&S assessment following the initial screening according to the World Bank's ES Policy.

Step 3: Public Consultation and Disclosure

Stakeholder Engagement Plans (SEPs) proportionate to the nature and scale of the proposed sub-projects will be prepared as an integral part of ESA as given in Section 4.1. All sub-project specific ESA documents (i.e. ESIA, ESMP and RP etc.) will be disclosed to the public as a part of SEP.

The timing and methods of engagement with stakeholders throughout the life cycle of the project will be described in the SEPs. Public consultation activities (including public consultation meetings) will be carried out as per the SEPs to be prepared. All consultation activities will consider additional measures to be taken in line with prevailing governmental restrictions under pandemic conditions.

Records of meetings and consultations with stakeholders will be included in the draft and final ESA documents.

Preparing and implementing a satisfactory SEP is the responsibility of the municipalities. They may fund the cost of the SEP either from the municipality's own resources or from the subproject loan.

ILBANK will perform an overall quality assurance function to confirm that the documents prepared meet the WB requirements. In reviewing a SEP, ILBANK will also confirm that it is clear, feasible and appropriate.

Step 4: World Bank Clearance

According to the project's overall screening criteria, the proposed sub-projects that have completed national EIA procedure, screened with respect to eligibility criteria and environmental and social assessment conducted based on the provisions set out in this ESMF will be eligible for financing.

The risk categorization of sub-projects will be determined via consultation with the WB. In case of any change in the risk category, ILBANK should discuss the new risk category with the WB and reach consensus.

The WB will provide prior review and approval to substantial risk sub-projects and then provide no-objection for the relevant environmental and social assessment (ESA) documents. The WB will do prior review of the ESA documents of the first five moderate risk subprojects and, after that, ILBANK will be responsible for the review of ESA documents for moderate risk subprojects, and the Bank will do the post review. Low Risk Category sub-projects will not require further ESA following the initial screening.

Step 5: Incorporation in Works Contracts

Sub-loan agreement must include the requirement to implement the site specific ESIAs and ESMPs to be prepared during implementation. The sub-loan agreements will also include the relevant elements for complying with the ESMF and the Environmental and Social Commitment Plan (ESCP), Stakeholder Engagement Plan (SEP), Labor Management Procedure (LMP), Ex-Post Social Audits and RPs. For all sub-projects, the site specific ESIAs and ESMPs, will also be attached to the procurement documents, the links to the site specific disclosed ESA documents will be provided and be part of the contract with the contractor selected to carry out the subproject works. These sections include potential impacts and risks that may occur during the set of works in question and measures that the contractor needs to take to mitigate them. In addition, the tender documents will specify the environmental, social and OHS requirements, and these requirements will be binding clauses/provisions in the contracts

Step 6: Information Disclosure

Likewise, public consultation and information disclosure activities will also be described in SEP and will be conducted accordingly. All E&S documents prepared under the project and subprojects will be disclosed (both in English and in Turkish) and consulted in a timely and transparent manner acceptable to the Bank and in line with SEP, considering any governmental restriction on the COVID19 pandemic and any other communicable disease that may emerge.

The draft site-specific E&S documents will be disclosed prior to consultation meetings. After receiving the feedbacks of the stakeholders, the ESA documents will be finalized to include the outcomes of the consultations; and will be disclosed in the country, including in local areas at or near subproject sites. Prior to subproject approval (by the World Bank), ILBANK will submit

English versions of the final ESIA, ESMP and RP documents to the World Bank for posting on its external website.

Step 7: Implementation of ESMPs for Sub-projects

The contractor will develop its site-specific sub-management plans in line with the ESMP prepared for the sub-project, including OHS plans before construction (Annex-2A). The contractor will:

- Have sufficient E&S capacity with sufficient qualifications and skills assigned on site, as needed,
- Develop site specific ESMP and sub-management plans as needed before construction, as part of their method statement and submit to Municipality for reviewing and approval,
- Duly implement the mitigation measures set out in the site-specific ESA document and respective sub-management plans for construction work,
- Control and minimize environmental and social impacts and risks,
- Ensure that all staff and workers understand the procedures and tasks in the environmental and social management program,
- Ensure environmental hygiene,
- Submit a monthly report on safeguard issues, mitigation, and results throughout the construction period to the Municipality,
- Promptly notify Municipality on any accident and incidents, and keep an incident register at construction site throughout the Project life, and
- Be responsible for the training of staff and workers regarding environmental, social and OHS issues.

Step 8: Supervision and Monitoring

The contractors on the site will be continuously monitored by the beneficiary Municipality's E&S team. In this respect, the Municipality will make sure that the site-specific ESA documents are duly implemented on site. This will be ensured through the E&S capacity of the Municipality. This will be:

- Hire/assign respective environmental and social experts with sufficient qualifications and skills as needed
- Ensure that site-specific ESA documents are in place and respective environmental and social mitigation measures are duly implemented by the contractor on site
- Monitor and supervise the activities of the contractor in line with WB ESF requirements
- Keep track of contractor's day to day activities, their commitment for implementation of the site-specific ESA documents, quality of work, adherence to safety guidelines and method statements
- Collect information on environmental and social issues from monthly progress reports prepared by the contractor and prepare quarterly monitoring reports addressing the non-compliances (if any). Those quarterly monitoring reports will be submitted to ILBANK via Municipality and eventually submitted to WB by ILBANK as bi-annual reports and make sure that these are all compliant with the Bank's requirements

ILBANK will carry out regular supervision of sub-projects during construction to ensure that the ESIA reports, ESMPs, SEPs, LM Plans, RPs, the national legislation and any other E&S

reports/plans are being duly implemented and that GMs are accessible and functional. When ILBANK notices any problems in the implementation of ESIA, ESMP, SEPs, LM Plans, RP or the national legislation, it will inform the relevant municipality and agree with them on the steps to rectify those problems. Specifically, for any significant environmental or social incidents (e.g. fatalities, lost time incidents, environmental spills etc.), the municipalities will inform ILBANK within 48 hours, and ILBANK will inform the World Bank about the incident as soon as it is informed. The incident report including root cause analysis, precautions and compensation measures taken, will be submitted to ILBANK within 30 business days, and ILBANK will forward the incident report to the World Bank. ILBANK will also report its findings to the World Bank in its biannual project progress report or more frequently, as needed to bring issues to the attention of the World Bank. The World Bank's Task Team for the project will, on occasion, and as required, also visit project sites as part of project supervision.

6 INSTITUTIONAL ARRANGEMENTS AND CAPACITY FOR ENVIRONMENTAL AND SOCIAL MANAGEMENT IMPLEMENTATION

6.1 Institutional Arrangements

Key actors in the implementation of this framework are the ILBANK's Project Management Unit (PMU) and the municipalities/utilities participating in the project.

ILBANK's PMU has been established under the International Relations Department which oversees and administers all internationally financed projects by utilizing procedural documents.

The PMU was established under the International Relations Department of ILBANK for the implementation of the Municipal Services Improvement Project (MSIP), which began preparation in 2003 and was implemented, together with an MSP-AF through 2016. This PMU has continued to implement the Sustainable Cities Project (SCP) 1, 2, SCP2-AF, and FRIT-MSIP.

The PMU is led by a department head and unit managers and has staff capacity specialized in procurement, financial management (FM), environmental and social, and technical related procedures of the WB; and sectors, particularly water, wastewater, and transport. ILBANK's E&S team consists of two (2) experts - one acting as the environmental focal point and the other - as the social development/land acquisition focal point. Besides, ILBANK's PMU has strengthened by hiring one (1) additional social and two (2) additional environmental consultants.

Besides many World Bank projects, ILBANK PMU has managed many projects financed by the European Investment Bank (EIB), Agence Française de Développement (AFD), and Japan International Cooperation Agency (JICA).

In terms of technical sectors, other departments of ILBANK support the PMU in project preparation and implementation.

A positive legacy of the MSIP and SCP has been that ILBANK has developed its project implementation and management capacity substantially. The ILBANK PMU staff were the beneficiaries of the intensive training sessions on World Bank procurement, safeguard implementation, and other topics and received numerous trainings related to the World Bank's safeguard policies and more recently - the Environmental and Social Framework (ESF) as a part of the ESF Borrower Training roll out program. The experience gained during implementation, together with the efforts of the Government of Türkiye to reform ILBANK have made it a more attractive institution for other international investors and laid the groundwork for harmonizing development financing in the sector. The already existing organizational setup and improved project implementation capacity of ILBANK PMU which have been reached through the long collaboration with the World Bank will increase sustainability of the project.

Under SCP1, SCP2 and FRIT-MSIP, participating municipalities are responsible for undertaking procurement and contracting activities for their specific sub-projects with the technical support and oversight of ILBANK. While most of the Metropolitan and Provincial

municipalities have experienced and dedicated departments for running projects financed by International Financial Institutions (IFIs), the institutional capacities of some of the municipalities are still not sufficient for sustaining outcomes. Most of the district municipalities have no capacity to perform IFI funded projects.

ILBANK and the World Bank E&S teams conduct regular meetings, discussions and joint meetings with the sub-borrowers as necessary for environmental and social risk identification and monitoring of the subprojects. ILBANK and the World Bank teams also conduct site visits during subproject risk identification and implementation. ILBANK team gained significant experience during the implementation of previous projects financed by the World Bank.

ILBANK is subject to Turkish national laws and regulations. Projects that ILBANK finances through international financing are governed by specific E&S framework documents based on the international standards (standards by the loan-issuing IFIs). For the World Bank-financed operations, this would be an ESMF.

In the following the overall roles and capacities of key factors are discussed. The summary of roles and responsibilities is listed in Table 43.

Table 43 Roles and Responsibilities

	Municipalities	**ILBANK**	**WB**
Financial Roles	**Sub-Borrower**	**Financial Intermediary**	**Main Finance Source**
Application Process	Submit Demand Based Applications to ILBANK	Review/analyze the applications in order to provide information to the WB	Concur the final selection of the sub-projects from the participating municipalities
Preparation Process	Apply the relevant environmental and social standards that are introduced by the WB through the ILBANK Screen proposed subprojects for E&S risks per the World Bank risk categorization and make arrangement for site-specific E&S assessments	Coordinate the selected municipalities to ensure all the relevant rules and regulations will be adopted throughout the project Organize internal working structure for the investment options	Assist ILBANK for monitoring the Results Framework of the Project Provide technical guidance to the ILBANK
Number of Staff	Assign one of each expert/focal point listed; Social Expert, Environmental Expert, and OHS expert.	One environmental specialist, one social specialist and one OHS specialist will be assigned from the present staff of PMU. Individual freelance consultants can also be employed to strength the PMU.	Assist the ILBANK in establishing monitoring team

	Municipalities	ILBANK	WB
Project Roles	Preparation and implementation of ESIAs, ESMPs, LM Plan, RPs and SEPs including management of subproject level Grievance Mechanisms Monitor environmental and social performance of the contractors' works on site, in line with the site-specific environmental and social requirements. Review E&S performance reports of contractor's (monthly) and supervision consultant's (quarterly), summarize on E&S compliance issues and report to ILBANK on quarterly basis on E&S compliance and monitoring	Responsible for reviewing and approving site-specific E&S documents for low and moderate risk sub-projects; and for monitoring the implementation of ESMF, ESCP, ESIAs, ESMPs, LMP and Grievance process Reporting to WB on biannual basis on E&S compliance and monitoring	Prior review and approval of E&S documents for Substantial risk subprojects. Prior review of first five ESA documents for moderate risk projects Overall review of the project development stages
	Tendering all the project works and consulting services	Supervise and monitor the whole process to ensure the proper application of the WB's ESSs and safeguard policies	Review of submitted reports to ensure compliance of project implementation with WB standards

6.1.1 ILBANK PMU

ILBANK PMU will assign one environmental, one social specialist and one OHS specialist within the scope of this project to coordinate the implementation of the Environmental and Social Management Framework. The OHS, Environmental and Social specialists' responsibilities will be as follows:

- Carry out screening of the sub-projects with regard to E&S risk categorization according to the World Bank's requirements.
- Provide guidance to the E&S consultants of the municipalities on the preparation of ESA documents in compliance with the World Bank's requirements.
- Provide guidance to the E&S consultants and officials of the municipalities on the World Bank's E&S assessment standards and procedures, notably consultation and disclosure requirements for sub-projects.

- Provide guidance to the officials and E&S consultants of the municipalities on the World Bank's ESSs and safeguard requirements (documentation and procedures) for cultural properties, natural/critical habitats, forests, and international waterways.

- Review the ESA documents, provide written comments to the E&S consultants of the municipalities, and ultimately provide formal approval of ESA documents and procedures in compliance with the requirements of the World Bank's E&S policies and ESSs.

- Ensure that the sub-loan documents include the agreements to implement the ESMF, ESCP, site specific ESIAs/ESMPs, and any other ESS and safeguard requirements.

- Supervise municipalities' implementation of ESMF, ESCP, site specific E&S documents and any other ESS requirements, document municipalities' E&S performance, and provide recommendations and any further actions required as part of the overall project supervision reporting to the World Bank.

- Be open and responsive to concerns raised by affected groups and local environmental authorities regarding the environmental and social aspects of subproject implementation. Meet with these groups during site visits, as necessary.

- Report to the WB about the compliance of the project implementation with the environmental, social, and OHS requirements set out in the project framework documents, the site-specific ESAs and ESCP.

- Coordinate the notification the World Bank about any significant incident (accidents, spills, fatalities, etc.) within 48 hours and send an incident investigation report together with the corrective action plan in 30 business days to the World Bank

- Coordinate and liaise with the World Bank supervision missions regarding environmental and social aspects of subproject implementation.

6.1.2 Municipalities/Utilities

The Municipalities will hold ultimate responsibility for the environmental and social performance of the sub-project, including the performance of its contractors. A Project Implementation Unit (PIU) will be established to carry out operational and administrative tasks to oversee the implementation of the E&S instruments and monitoring progress. The municipalities/utilities will be responsible for the preparation and implementation of ESIAs, ESMPs, RPs and SEPs including management of subproject level Grievance Mechanisms; for the monitoring environmental and social performance of the contractors' works on site, in line with the site-specific environmental and social requirements; for the reporting to ILBANK on quarterly basis on E&S compliance and monitoring as stated in Table 43.

The Municipalities will be responsible for the incident and accident reporting and informing the necessary institutions (WB, ILBANK etc.), as per the provisions explained below:

- The World Bank and ILBANK will be promptly notified of any incident or accident related to the Project which has, or is likely to have, a significant adverse effect on the

environment, the affected communities, the public or workers including but not limited to; incidents and accidents encountered during construction works, environmental spills, etc.

- Sufficient detail will be provided regarding the incident or accident, findings of the Root Cause Analysis (RCA), indicating immediate measures or corrective actions taken or that are planned to be taken to address it, compensation paid, and any information provided by any contractor and supervision consultant, as appropriate. It will be ensured that the incident report is in line with the World Bank's Environment and Social Incidence Response Toolkit. Subsequently, as per the Bank's request, a report on the incident or accident and propose any measures to prevent its recurrence will be prepared.

- Municipality will report details of any significant environmental or social incidents (e.g. fatalities, lost time incidents, environmental spills etc.) within 48 hours and submit an incident report, including RCA, precautions and compensation measures taken within 30 business days. ILBANK will forward the incident report to the World Bank immediately upon receipt from the municipality.

The E&S documents to be prepared by the Municipalities utilizing consultancy companies of which there is an adequate number in Türkiye. Municipalities have been carrying out infrastructure investments and are familiar with Turkish environmental legislation and construction procedures. However, knowledge of the World Bank's requirements is less common. To help build capacity in this regard, ILBANK will organize training workshops to familiarize municipalities and their potential consultants with the WB's ESF, ESSs, and WBG EHS Guidelines.

The municipalities generally have the capacity to properly implement ESMF, ESIA/ESMP, RF, ESCP, SEP, LMP and subproject-specific ESA documents during the construction and operation phases. Where such capacity is lacking within the municipalities, they will be encouraged to retain environmental and social consultants as well as OHS Expert to assist them in supervising the works carried out by the contractor and ensuring that the ESMF, ESIA, ESMP, RF, LMP, ESCP, SEF subproject-specific E&S documents are followed adequately. Furthermore, the project may provide institutional strengthening to municipalities through additional training or acquisition of equipment, as needed. The capacity strengthening of the participating municipalities will be carried out by ILBANK PMU in close collaboration with the World Bank as discussed in Section 6.1.4.

The E&S experts of PIUs will be responsible to implement the ESF in a satisfactory manner, including environmental activities during project preparation and implementation involving appropriate level of public consultation and information disclosure; reporting on environmental and social performance of all activities in monitoring reports; implementing and reporting on SEP, LMP, and Grievance Mechanism.

The OHS experts of PIUs will also be responsible to implement the ESF in a satisfactory manner, ensuring that OHS issues to be covered in all supervision and monitoring activities, adhering to good OHS practices. Municipalities/utilities will be responsible for tendering all the project works and consulting services as stated in Table 43.

6.1.3 Construction Contractor/Sub-contractors, Supervision Engineering Consultants

The contractor will carry out the construction activities of the sub-project in line with the approved design documents and will be the responsible body to implement and apply the mitigation measures given in ESIA/ESMP during construction phase. The contractor should adhere to assigned duties and responsibilities as specified in the ESIA/ESMP to ensure compliance with related national regulations and WB's ESSs. The contractor will employ a full time OHS specialist and a full time environmental and social expert who will instruct and consult the workers on GM and implementation of ESIA/ESMP (including grievance mechanism and the applicable stakeholder engagement activities detailed in project SEP). Furthermore, a competent environmental and social expert of contractor will monitor implementation of measures given in the mitigation plan. The prompt notification of accident and incidents within the scope of construction works in line with the above-described provisions is the responsibility of the contractor. The contractor will keep an incident register at construction site throughout the construction and defects liability period.

During the construction phase, the contractor firm will train its workers on environmental and social aspects (including OHS) as per WB's ESSs and national regulations in order to raise environmental and social awareness. During the defects liability period, the contractor will be responsible for any repairs of the newly constructed facilities, in accordance with legal regulations as of provisional acceptance. Within the liability period, the contractor will implement measures given in Environmental and Social Mitigation Plan for operation.

Supervision consultant will include at least one Environmental Expert, one Social Expert and one Occupational Health and Safety Expert. Number of experts will be increased if necessary. Supervision Consultant will provide supervision of construction and/or rehabilitation works and installation of equipment. The experts will identify and manage environmental, social and OHS related risks and initiate corrective actions where necessary. The experts will also monitor and evaluate performance of services provided by the contractor. In addition, regular quarterly report regarding to environmental, social and OHS issues of the Project during construction phase will be provided by Supervision Consultant to the concerned municipality.

The reporting responsibilities are:

- The contractor will prepare monthly Environmental and Social Monitoring Reports (ESMR) and submit to municipality through supervision consultant.
- The supervision consultant will prepare quarterly ESMR and submit the non-compliances for the construction works (if any) to the municipality.
- The municipality will review the above mentioned ESMR, and send a summary report to ILBANK on E&S compliance issues on quarterly basis.
- These reports will be integrated in the bi-annual reports of the ILBANK and submitted to the World Bank.

6.2 Training Programme and Budget

The capacity strengthening of the participating municipalities/utilities within Component 2 will be carried out by ILBANK PMU in close collaboration with the World Bank. In this regard,

ILBANK will organize training workshops to familiarize municipalities and their potential consultants with the World Bank's ESSs and E&S policies. The project may also provide institutional strengthening to municipalities/utilities through additional training or acquisition of equipment, as needed.

The indicative budget for the implementation of the ESMF is estimated as 2,3100,000 Euro including the training budget as provided in table below..

Table 44 Estimated Budget of ESMF Implementation

Items	Estimated Budget (EURO)
1.Establishment of ESMF Implementation Team	
Environmental Specialist	400.000
Social Specialists	350.000
OHS Specialists	350.000
2.Techical Support	300.000
3.Training and Capacity Building	200.000
4.Dissemination of Information	100.000
5.Greivance mechanism	300.000
6.Visibility materials	300.000
Total estimated	2.300.000

Table 45 Training Programme

Item No	Heading of the Training	Target Group	Timing and Duration
1	**Environmental and Social Framework:** • Training on ESF and the ESSs including preparation of ESIA, ESMP, RP, SEP • Implementation of ESMF, RF, ESIA, ESMP, LMP, SEP, GM and RP	PIUs	Initial training no later than 60 days after formation of the PMU/PIU and before start of Project activities. Refresher trainings at least once a year or as needed, during Project implementation.
2	**Occupational Health and Safety** • Workplace risk management Prevention of accidents at work sites • Use of Personal Protection Equipment's (PPEs) • Health and safety standards • Hazardous waste management • Solid and liquid waste management • Preparedness and response to emergency situation • Awareness on communicable diseases (i.e. Covid-19, HIV/AIDS etc.)	PIUs	Initial training no later than 60 days after formation of the PMU/PIU and before start of Project activities. Refresher trainings at least once a year or as needed, during Project implementation.

3	**Labour and Working Conditions:** • Implementation of the LMP • Terms and conditions of employment according to national working laws and regulations • Contractor and sub-contractor codes of conduct • Worker's organizations • Child labor and forced labor issues • Workers' Grievance Mechanism	PIUs	Initial training no later than 60 days after formation of the PMU/PIU and before start of Project activities. Refresher trainings at least once a year or as needed, during Project implementation.
4	**Grievance Mechanism**: • Implementation of GM • Registration and processing procedure • Grievance redress procedure • Documenting and processing grievances	PIUs	Initial training no later than 60 days after formation of the PMU/PIU and before start of Project activities. Refresher trainings at least once a year or as needed, during Project implementation.

6.3 Capacity Assessment of ILBANK

ILBANK's organizational information has been provided in Section 1.5. ILBANK's capacity in environmental and social management is detailed in this section.

6.3.1 Area of Operation

ILBANK is a leading organization that carries out important activities in main areas such as providing finance, developing and executing projects, consultancy and technical services to local authorities, distributing the shares allocated to local authorities from the general budget, making applications with profit-oriented real estate investment projects, carrying out the construction works with the demanded special projects and urban infrastructure projects. Within the scope of the work, water network, water treatment plant, sewerage network, wastewater treatment plant and landfill facilities, paving and road construction activities of local authorities, bridge construction and similar infrastructure projects as well as superstructure works are also included. In addition to the domestic business areas, ILBANK cooperates highly with various international organizations such as the WB, EIB, JICA and Islamic Development Bank in the field of domestic operations as well as the use of loans and funds abroad.

6.3.2 Environmental and Social Management Capacity

ILBANK will adopt an Environmental and Social Management System (ESMS) which includes: an Environmental and Social Policy; procedures for the identification, assessment and management of the environmental and social risks and impacts of subprojects; organization structure and staff capacity resources necessary to support such implementation; monitoring

and review of environmental and social risks of subprojects and the portfolio; and an external communications mechanism. ILBANK's ESMS will be utilized for all IFI financed projects will be established by no later than 120 days after the Loan Effective Date.

As an affiliate to MoEUCC, ILBANK is subject to Turkish national laws and regulations. Therefore, it is responsible for the application of various law and regulations including Environment Law, Expropriation Law, Resettlement Law etc. for the sub-projects it finances or signs sub-loan agreements.

Credit evaluation process of ILBANK includes technical, economic and financial assessment of subject loans. The environmental and social assessment is mainly based on the permitting and land acquisition requirements in the scope of technical assessment.

Projects that ILBANK finances through international financing institutions such as WB, EIB, and JICA are handled by International Relations Department which utilizes key procedural documents for internationally financed investments. The key procedural documents managing the project's environmental and social screening, review and monitoring procedures for sub-projects are the ESMF and RF which are implemented throughout the lifetime of the international funded projects. For the World Bank-financed projects, these framework documents are integrated into the Project Appraisal Document (PAD) and Project Operational Manual (POM) of the project and also the core elements are referred in the Loan Agreements. Therefore, ILBANK is fully responsible for the satisfactory implementation of the framework E&S documents. The ESMF and RF additionally require that subproject-specific E&S documents are prepared for the sub-projects and these become a part of the sub-loan agreements between ILBANK and sub-borrowers. Through these sub-loan agreements, ILBANK and the World Bank manage and oversee the sub-projects in terms of the World Bank E&S requirements.

PMU has been established under the International Relations Department which oversees and administers all internationally financed projects by utilizing procedural documents. ILBANK's PMU has staff specialized in technical, procurement, environmental, social and FM related procedures of the WB. ILBANK staff received numerous trainings related to the World Bank's safeguard policies and more recently - the Environmental and Social Framework (ESF) as a part of the ESF Borrower Training roll out program. ILBANK's E&S team consists of 5 (five) experts (4 environmental and one social) – one acting as the environmental focal point and one as the social development/land acquisition focal point. Besides, ILBANK's PMU has strengthened by hiring 1 additional social and 2 additional environmental consultants.

6.3.3 Labor and Working Conditions (as per ESS2)

Occupational Health and Safety

In recent years, Türkiye has undergone a reform to improve its national OHS system through adapting a set of international and regional standards into its national level requirements for the prevention occupational risks defined in the ILO Occupational Safety and Health Convention, 1981 (No. 155). The convention, along with the Occupational Health Services Convention, 1985 (No. 161) were both ratified by Türkiye in 2005 who is also party to the Labor Inspection

Convention, 1945 (No. 81) since 1951. In 2014, Türkiye ratified the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).

During 2012, a stand-alone Law on OHS (No. 6331) was put into force (20 June 2012). The OHS Law governs workplace environments and industries (both public and private) as well as virtually all classes of employees including part-time workers, interns, and apprentices. The legislation is comprehensive and is generally applicable across all sectors and many industries.

As government agency ILBANK is subject to national law on OHS of the Ministry of Labor and Social Security. ILBANK will appoint OHS specialist responsible for the supervision OHS measures implementation, which are required Turkish OHS laws and regulations and ESS2. ILBANK will make sure that supervision consultants and municipalities will also appoint OHS specialist responsible for the supervision OHS measures implementation.

According to the national OHS Law, all employers must notify the Ministry of Labor and Social Security in 3 business days after OHS related incidents. Specifically, for any significant environmental or social incidents (e.g. fatalities, lost time incidents, environmental spills etc.), the municipalities will inform ILBANK immediately, and ILBANK will inform the Bank about the incident within 48 hours after the occurrence of the incident or accident and will report in its turn to the Bank 48 hours after receiving from the PIUs the relevant information. The incident report including root cause analysis, precautions and compensation measures taken, will be submitted to ILBANK in 30 business days and ILBANK will forward the incident report to the World Bank.

All ILBANK facilities are equipped with fire safety instruments as required by local regulation. Fire safety plans are also prepared and revised by the responsible department. The staff receives routine training on fire safety and first aid. Regular drills are conducted and reported. For all sub-projects, ILBANK will require the sub-borrower municipalities/utilities to ensure that OHS measures are undertaken according to the national OHS law and international best practice.

Labor and Working Conditions

Türkiye is a party to a multitude of ILO conventions, including but not limited to conventions on: equal treatment of employees, gender equality, child labor, forced labor, OHS, right of association and minimum wage. Accordingly, the current Turkish Labor Law (No.4857) is to a large extent consistent with requirements of ESS2.

ILBANK has published a corporate level Human Resource Policy[19] (dated 05.03.2021 in the Official Gazette numbered 31415) that is also in line with national regulations as well as WB requirements. ILBANK employees are civil servants and only OHS, and prohibition child and forced labor ESS 2 provisions applied to civil servants. The HR policy aims to define employees' personal rights including; working hours, leaves (maternity, social events, unpaid), financial rights, working conditions, promotions etc. The policy allows for equal opportunity and employment rights. As ILBANK is a government agency no one under the legal age (18 years) is permitted to work within the institution; thus, no child labor related issues exist. Cases including unregistered/ uninsured employment, unequal employment opportunities for women

[19] https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=38376&MevzuatTur=7&MevzuatTertip=

etc. that may be relevant to civil works that ILBANK's or borrowing municipality's contractors may encounter, will not be an issue in terms of incompliance with ESS2 for ILBANK.

ILBANK is committed to ensure compliance of its own operations and those of any contractors or sub-contractors working at the Project with the provision of the following:

- The Turkish Labor Law
- WB ESS 2 Requirements
- ILBANK Human Resource Policy

ILBANK will have specific policies in place intended to maximize beneficial impacts of the Project and to minimize or mitigate its potential adverse impacts:

- A Human Resources Policy that prioritizes local residents for employment, thus maximizing socio-economic benefits in communities closest to operations;
- Specific anti-discrimination policies and grievance management procedures.

Key management measures, reporting and monitoring on unregistered/uninsured employment, unequal employment opportunities for women etc. that may be relevant to civil works that ILBANK's or borrowing municipality's contractors will be presented in Labor Management Policy.

Labor Management Procedures. ILBANK' corporate level Human Resource Policy aims to define the employee personnel rights including; working hours, leaves (maternity, social events, unpaid), financial rights, working conditions, promotions etc. The policy allows equal opportunity and employment rights. As ILBANK is a government agency no one under the legal age (18 years) is permitted to work within the institution; thus, no child labor related issues will exist. Detailed assessment of labor management within the scope of ILBANK's current operational procedures has been carried out and presented via the project LMP document in order to verify that Turkish labor law requirements are implemented under the civil works conducted by the contractors.

Grievance Mechanism for ILBANK Employees. ILBANK aims to follow-up on customer satisfaction as well as to meet the needs and expectations of its employees through a grievance mechanism. For this purpose, there are Request and Complaint Boxes in various parts of ILBANK buildings. Additionally, a Grievance Mechanism[20] (GM) already established in September 2021 and will be active during the course of the Project.

The White Table System

Additional to the GM established by ILBANK, all municipalities adopted a service called *Beyaz Masa* ("White Table" in English) in Türkiye to collect feedback from citizens. This municipal department was established to collect all the complaints and requests of the local residents and aims to provide possible solutions within the municipal structure for the requested concerns.

[20] https://www.ilbank.gov.tr/storage/uploads/pagefiles/ilbank_gm_policy_1646748212.pdf

Although the White Table system is not considered as a grievance mechanism, it is still acknowledged as a general complaint mechanism that the municipalities adopted within their structure. Therefore, the White Table system can be considered as an additional complaint mechanism for the selected projects since the selected projects are already within the municipality structure.

Citizens can access the White Table by calling the Call Center (Alo 153), internet page or in person. There will be a tracking number given for each comment/complaint that allows following up the status of the report. Alo 153 Call Center intends to provide better quality assistance and faster solutions for concerned residents through the White Table solutions team. There is also an internet page of municipalities, which includes a White Table section that allows the residents to contact public relations experts electronically. Also, the residents can apply their requests in person for an instant solution.

The White Table system provides data management through the feedback of the citizens, however due to some organizational barriers (lack of specific departments and personnel); the system may disable itself to address the received concern/comments. Therefore, this system will be improved as mentioned above and will be tailored for the subproject needs, as necessary.

All the grievances and feedbacks received form the White Table system will be registered and handled in the existing GM.

7 MONITORING AND REPORTING

7.1 Environmental and Social Monitoring

Environmental and social monitoring system starts from the construction phase of the project thorough the operation phase, verifying the implementation of the mitigation measures in the E&S instruments and assessing their effectiveness, thus enabling the Borrower and the WB to take action when needed.

The monitoring system provides:

- Technical assistance and supervision when needed,
- Early detection of conditions related to particular mitigation measures,
- Follow up on mitigation results, and
- Provide information of the project progress.

Municipalities will monitor the environmental and social impacts and risks of their project activities on a regular basis (i.e. monthly monitoring reports prepared and submitted by the constructor to the municipality through supervision consultant, and quarterly monitoring reports prepared and submitted by the supervision consultant to the municipality). The environmental and social issues included within the mitigation measures will also be monitored and supervised by the appointed specialists through ILBANK.

Monthly/Quarterly Environmental and Social Monitoring Report is one of the most important tools to record the monitoring activities which will be submitted to ILBANK by the municipality during construction phase and will at least include all the issues defined in the ESIA/ESMP of the sub-project. The monitoring results will be compared with the national legislative requirements and World Bank EHS Guidelines.

When ILBANK notices any problems in ESIA, ESMP, LM Plan, SEP or RP implementation, it will inform the relevant municipality and agree with them on steps to rectify these problems. Specifically for any significant environmental or social incidents, the municipalities will inform ILBANK, and ILBANK will inform the World Bank.

7.2 Reporting to the World Bank

In its biannual project progress reports, ILBANK will include a section titled “Environmental and Social Requirements” which will summarize the status of ESCP and compliance with ESMF, RF (including the performance related to subproject specific ESIAs, ESMPs and RPs), LMP and SEP implementation based on its monitoring activities as well as incidents/accidents, if any. Any sub-projects that may involve land acquisition and which have prepared a RP will also be monitored and updates on RP implementation will be included in the biannual progress reports or submitted separately semi-annually. Such reports will highlight any issues arising from non-compliance with E&S requirements and how it has been/is being addressed from the environmental and social environmental and social point of view. The biannual reports will also include account of any stakeholder engagement activities carried out along with a summary of all grievances received and resolved during that reporting period. Upon agreement with the WB, a more frequent reporting (i.e. monthly or quarterly) on the implementation of the E&S & OHS requirements could also be prepared and submitted. The Table 46 provides a summary on

the general E&S reporting requirements including the responsibilities of the related entities. The reporting requirements for OHS are specifically provided in Section 6.1.2.

Table 46 Reporting Requirements of Relevant Entities

Company/Institution	Tasks
Construction Contractor	The construction contractor should develop monthly ESMRs and submit to Municipality through the Supervision Consultant. During the defects liability period, the contractor will be responsible for any repairs of the newly constructed facilities, in accordance with legal regulations as of provisional acceptance. Within the liability period, the contractor will implement measures given in Environmental and Social Mitigation Plan for operation.
Municipality PIU	The PIU will examine the monthly and quarterly ESMR of the contractor/s and the Supervision Consultants and will be responsible for the timely delivery of the Monthly and Quarterly ESMRs to ILBANK.
Supervision Consultant	The Supervision Consultant will review the monthly ESMRs of the contractor/s and will include its own assessments and observations on ESHS aspects and prepare quarterly ESMRs and submit to Municipality. The Supervision Consultant has the responsibility to prepare non-conformity forms in the event of any non-conformity observed during the site inspections and within the reports.
ILBANK's PMU	The PMU will review the monthly/quarterly reports delivered by the Municipality during the construction phase. ILBANK will inform the WB by providing regular semi-annual monitoring reports on the ESHS performance of the project.
World Bank	The WB will review regular semi-annual monitoring reports on the ESHS performance of the project and instruct ILBANK if any non-conformity or non-compliance identified.

8 ESMF DISCLOSURE AND CONSULTATION

The draft ESMF will be disclosed and a stakeholder consultation meeting will be organized by the respective institutions in close coordination with ILBANK in order to obtain views and comments of relevant stakeholders about the Project.

For the consultation meetings, the institutions to be invited, but not limited to, are as follows:

1. Ministry of Environment, Urbanization and Climate Change
2. Turkish Environmental Agency
3. Climate Change Presidency
4. Turkish State Meteorological Service
5. Ministry of Interior
6. Ministry of Agriculture and Forestry
7. Directorate General of Forestry
8. Directorate General of Water Management
9. Disaster and Emergency Management Presidency (AFAD)
10. Provincial Directorates of Environment, Urbanization and Climate Change
11. Provincial Disaster and Emergency Directorates
12. Provincial Directorates of Civil Defense Search and Rescue
13. General Directorate of State Hydraulic Works
14. Union of Municipalities of Türkiye
15. Related Municipalities and Utilities

During the Stakeholder Consultation Meeting, Environmental and Social Management Framework (ESMF), RF and the SEP which have been prepared in line with ESF requirements and Turkish Regulation will be introduced to the participants and their discussed. At the end of the meeting, a question-and-answer session will be held. Participants list and minutes will be prepared for the meeting and will be included as annex to this ESMF. The ESMF will be disclosed at ILBANK's and respective utilizes/municipalities' websites, and at the World Bank's external website.

ANNEXES

ANNEX 1. WORLD BANK'S PROJECT CATEGORIZATION

According to the World Bank's E&S Policy, projects (including projects involving FIs) are classified into one of four classifications as ***High Risk***, ***Substantial Risk***, ***Moderate Risk*** or ***Low Risk*** taking into account relevant potential risks and impacts, such as the type, location, sensitivity and scale of the project; the nature and magnitude of the potential E&S risks and impacts; the capacity and commitment of the Borrower; and other areas of risks that may be relevant to the delivery of E&S mitigation measures and outcomes.

A project is classified as ***High Risk*** after considering, in an integrated manner, the risks and impacts of the project, taking into account the following, as applicable:

a. The project is likely to generate a wide range of significant adverse risks and impacts on human populations or the environment. This could be because of the complex nature of the project, the scale (large to very large) or the sensitivity of the location(s) of the project. This would take into account whether the potential risks and impacts associated with the Project have the majority or all of the following characteristics:

    i. long term, permanent and/or irreversible (e.g., loss of major natural habitat or conversion of wetland), and impossible to avoid entirely due to the nature of the project;

    ii. high in magnitude and/or in spatial extent (the geographical area or size of the population likely to be affected is large to very large);

    iii. significant adverse cumulative impacts;

    iv. significant adverse transboundary impacts; and

    v. a high probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.).

b. The area likely to be affected is of high value and sensitivity, for example sensitive and valuable ecosystems and habitats (legally protected and internationally recognized areas of high biodiversity value), lands or rights of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and other vulnerable minorities, intensive or complex involuntary resettlement or land acquisition, impacts on cultural heritage or densely populated urban areas.

c. Some of the significant adverse ES risk and impacts of the project cannot be mitigated or specific mitigation measures require complex and/or unproven mitigation, compensatory measures or technology, or sophisticated social analysis and implementation.

d. There are significant concerns that the adverse social impacts of the project, and the associated mitigation measures, may give rise to significant social conflict or harm or significant risks to human security.

e. There is a history of unrest in the area of the project or the sector, and there may be significant concerns regarding the activities of security forces.

f. The project is being developed in a legal or regulatory environment where there is significant uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or

regulations do not adequately address the risks and impacts of complex projects, or changes to applicable legislation are being made, or enforcement is weak.

g. The past experience of the Borrower and the implementing agencies in developing complex projects is limited, their track record regarding ES issues would present significant challenges or concerns given the nature of the project's potential risks and impacts.

h. There are significant concerns related to the capacity and commitment for, and track record of relevant Project parties, in relation to stakeholder engagement.

i. There are a number of factors outside the control of the Project that could have a significant impact on the ES performance and outcomes of the project.

A project is classified as ***Substantial Risk*** after considering, in an integrated manner, the risks and impacts of the project, taking into account the following, as applicable:

a. the project may not be as complex as ***High Risk*** projects, its ES scale and impact may be smaller (large to medium) and the location may not be in such a highly sensitive area, and some risks and impacts may be significant. This would take into account whether the potential risks and impacts have the majority or all of the following characteristics:

    i. they are mostly temporary, predictable and/or reversible, and the nature of the project does not preclude the possibility of avoiding or reversing them (although substantial investment and time may be required);

    ii. there are concerns that the adverse social impacts of the project, and the associated mitigation measures, may give rise to a limited degree of social conflict, harm or risks to human security;

    iii. they are medium in magnitude and/or in spatial extent (the geographical area and size of the population likely to be affected are medium to large);

    iv. the potential for cumulative and/or transboundary impacts may exist, but they are less severe and more readily avoided or mitigated than for ***High Risk*** projects; and

    v. there is medium to low probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.), and there are known and reliable mechanisms available to prevent or minimize such incidents.

b. The effects of the project on areas of high value or sensitivity are expected to be lower than ***High Risk*** projects.

c. Mitigatory and/or compensatory measures may be designed more readily and be more reliable than those of ***High Risk*** projects.

d. The project is being developed in a legal or regulatory environment where there is uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or regulations do not adequately address the risks and impacts of complex projects, or changes to applicable legislation are being made, or enforcement is weak.

e. The past experience of the Borrower and the implementing agencies in developing complex projects is limited in some respects, and their track record regarding ES issues suggests some concerns which can be readily addressed through implementation support.

f. There are some concerns over capacity and experience in managing stakeholder engagement but these could be readily addressed through implementation support.

A project is classified as ***Moderate Risk*** after considering, in an integrated manner, the risks and impacts of the project, taking into account the following, as applicable:

a. the potential adverse risks and impacts on human populations and/or the environment are not likely to be significant. This is because the project is not complex and/or large, does not involve activities that have a high potential for harming people or the environment, and is located away from environmentally or socially sensitive areas. As such, the potential risks and impacts and issues are likely to have the following characteristics:

    (i) predictable and expected to be temporary and/or reversible;

    (ii) low in magnitude;

    (iii) site-specific, without likelihood of impacts beyond the actual footprint of the project; and

    (iv) low probability of serious adverse effects to human health and/or the environment (e.g., do not involve use or disposal of toxic materials, routine safety precautions are expected to be sufficient to prevent accidents, etc.).

b. The project's risks and impacts can be easily mitigated in a predictable manner.

A project is classified as ***Low Risk*** if its potential adverse risks to and impacts on human populations and/or the environment are likely to be minimal or negligible. These projects, with few or no adverse risks and impacts and issues, do not require further ES assessment following the initial screening.

Annex 1-A: Environmental and Social Impacts and Risks Screening Template

Sample Environmental Screening Form

Sub-project Information

Sub-project name	
Procurement Plan Item No	
Type of sub-project	
Implementing authority(ies)	
Location of sub-project (Neighborhood(s), District, Province)	
Brief Description of Sub-project activities: (construction and operation/implementation activities)	
Geographical coordinates of the Site:	
Area of land that will be used for the sub-project:	
Current Land use	
Land ownership	
Access routes to the Site	

Baseline Environmental Conditions

Is the sub-project site located on or adjacent to any of the following (Provide information for all sites and alignment of the project components/sub-components, associated activities; give details, mention distance to these features in km)

No	Environmental Aspects	Yes	No	Details
1.	Sensitive ecosystems			
2.	Natural habitats			
3.	Areas with protection status (cultural /archaeological /natural)			
4.	Critical habitats			
5.	Describe the soil and vegetation on site	n/a	n/a	

Sensitive Receptors

Are there sensitive receptors in the area of influence of the sub-project, such as:

No	Sensitive receptors	Yes	No	Details
1.	Housing units, schools, hospitals or other sensitive receptors			
2.	Culturally and/or socially important paths, areas/religious occupancies, burial grounds, tourist or pilgrim congregation areas, etc.			
3.	Water sources (groundwater wells, springs, surface water resources)			
4.	Areas prone to flooding / landslides			
5.	Downstream communities			
6.	Areas affected by landslides			
7.	Other sensitive receptors			

Current Environmental Status

1.	Is the site in critical / over exploited condition?			
2.	Is the site covered with vegetation?			
3.	Is the site disaster-prone? If yes; list all disaster zone categories applicable.			
4.	Is the site suitable for proposed development?			
5.	Describe existing pollution or degradation in the site(s)	n/a	n/a	
6.	Any other remarks on baseline condition?			
7.	Is there a possibility for Asbestos Containing Materials at the site(s)?			

Anticipated Environmental Impacts: Impacts on Land, Geology and Soils

Will the proposed sub-project cause the following on land / soil?

Item	Impacts	Yes / Maybe	No	Details
1.	substantial removal of top soil (indicate in sqm)			
2.	degradation of land			
3.	loss or impacts on cultural/heritage properties			
4.	physical changes in the project area (i.e. changes to the topography) due to cutting and filling, excavation, earthwork or any other activity			
5.	contamination or pollution of the Land? (indicate possible risks)			

Impacts on Water Environment

Will the sub-project or its components cause any of the following impacts on quantity or quality of water sources?

Item	Impacts	Yes / Maybe	No	Details
1.	Will the sub-project involve dredging in the river environment?			
2.	Impacts on availability and access to water resources			
3.	Pollution of water bodies/ground water nearby or downstream			
4.	Impacts on river flow patterns			
5.	Will the project result in stagnation of water flow or pondage?			

Impacts on Biodiversity

Will the sub-project or its components cause any of the following impacts on biodiversity?

Item	Environmental Impacts	Yes / Maybe	No	Details
1.	cutting of trees or clearing of vegetation?			
2.	habitat fragmentation due to the clearing activities? (i.e. hindrance to the local biodiversity like disturbing the migratory path of fish, birds, mammals, etc.)			
3.	potential nuisance of noise and light pollution or any disturbance on surrounding habitats			

Impacts on Communities

Will the sub-project or its components cause any of the following impacts on nearby communities?

Item	Environmental Impacts	Yes / Maybe	No	Details
1.	Health & Safety risks in nearby communities (major accident risks such as explosions, fires, toxic releases, etc.)			
2.	Potential noise/vibration to nearby communities			
3.	Potential damages to common property, roads, etc.			
4.	Potential risks of traffic accidents			

Impacts due to Storage and Wastes: Pollution and Hazards

Will the sub-project or its components cause any impact due to storage of materials, wastes or pollution due to releases during various project activities?

Item	Type	Yes	No	Details
1.	Does the project include use or storage of dangerous substances (e.g., large quantities of hazardous chemicals/ materials like Chlorine, Diesel, Petroleum products; any other?			
2.	Will the project produce solid or liquid wastes; including construction/demolition wastes (including dredging, de-weeding wastes, muck/silt, dust); polluted liquids?			

Environmental Pollution

Will the process cause or increase the following?

Item	Type	Yes	No	Details
1.	Air pollution			
2.	Odor nuisance			
3.	Environmental noise			
4.	Visual blight or light pollution			
5.	Water pollution (surface waters, groundwater)			
6.	Coil contamination			
7.	Other types of impacts on the ambient environment			
8.	Expouse to the hazardous materials (such as asbestos)			

Suggested Environmental Enhancement Measures

Has the sub-project design considered the following enhancement measures?

Item	Enhancement Measures	Yes	No	Details
1.	Energy conservation measures/ energy recovery options incorporated in sub-project design			
2.	Waste minimization or waste reuse/recycle options			
3.	Rainwater harvesting, water recycling and other water resource enhancement measures			
4.	Mitigations against extreme events, drought, flood, other natural disasters			
5.	License for water withdrawal from surface water source			
6.	Dredging permits			
7.	License for transportation and storage of diesel, oil and lubricants, etc.			
8.	License for transportation of hazardous wastes			

SUMMARY OF ENVIRONMENTAL SCREENING

Project Categorization and Need for ESF Instruments, Oversight

Project Category	☐ Low ☐ Moderate ☐ Substantial ☐ High
Key Reasons	
Safeguards Instruments Required	☐ ESIA and ESMP ☐ ESMP ☐ SEP ☐ RP ☐ Ex-Post Social Audit Report

Status	IA	Name, Signat ure with Date
Prepared by		
Checked and categorized as (low, moderate, substantial, high) by		

Reviewed and approved by		

Annex 1-B: Sample Social Screening Form

Land Acquisition and Livelihoods

Land Acquisition	Yes	No	Details
Does the sub-project require private land acquisition?			
Was the land required for sub-project already acquired?			
Has the acquired lands been duly transferred and are there any litigation/legacy (pending for title transfer, compensation payment, ownership disputes etc) issues?			
Are there any complaints/unresolved cases of already acquired lands?			
Is it possible to purchase privately owned through a Willing Buyer–Willing Seller agreement?			
Does the sub-project cause any access restriction to the commuters/pedestrians/ business and trades?			
Is land for material mobilization or transport for the civil work available within the existing plot/Right of Way?			
Are there any formal / informal users or non-titled people who are utilizing (inhabiting/doing business or using for other purposes etc.) the proposed site/project locations that will be used for civil works? If yes, please provide how many and for what purposes.			
Is any temporary impact likely on livelihoods of persons living on the land to be acquired?			
Is there any possibility to move out, close of business/commercial/livelihood activities of persons during construction?			
Is there any case of temporary or permanent physical displacement of persons due to sub-project works?			
Does this project involve resettlement (physical displacement) of any persons? If yes, give details.			
Will there be loss of/damage to productive trees, fruit plants or crops that generate livelihood income for the households?			
Will there be loss of incomes and livelihoods for anyone due to project intervention?			
Will people permanently or temporarily lose access to facilities, services, or natural resources?			

Labor

Labor issues	Yes	No	Details
Will project cause loss of employments/jobs?			
Will project generate excessive labor influx as a result of new constructions?			
Does construction activities require additional/skilled labor from outside the locality?			
Will sub-project/construction activities cause destruction/disturbance to host community living?			
Will construction of new buildings, drainage lines, powerlines create any degradation/disturbances for public buildings/resources/ adjacent houses, wells, lands, burial places, children parks, schools etc.?			
Will this intervention generate downsize in current labor force (retrenchments) of the agency?			
Are there are GBV/SEA/SH risks for workers?			
Is there a grievance mechanism for the workers? Is it functioning?			

Vulnerable Groups

Vulnerability issues	Yes	No	Details
Are there any vulnerable groups who may be affected adversely due to the sub-project?			

SUMMARY OF SOCIAL SCREENING

Project Categorization and Need for Safeguards Instruments, Oversight

Project Category	☐ Low ☐ Moderate ☐ Substantial ☐ High
Key Reasons	
Safeguards Instruments Required	☐ ESIA and ESMP ☐ ESMP ☐ SEP ☐ RP ☐ Ex-Post Social Audit Report

Status	Agency / Official	Name, Signature with Date
Prepared by		
Checked and Categorized as (low, moderate, substantial, high) by		
Reviewed and accepted by		

ANNEX 2. SUGGESTED FORMATS

Annex 2A. Indicative Environmental and Social Impact Assessment (ESIA) Outline

(a) Executive Summary

- Concisely discusses significant findings and recommended actions.

(b) Legal and Institutional Framework[21]

- Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26.

- Compares the Borrower's existing environmental and social framework and the ESSs and identify the gaps between them.

- Identifies and assesses the environmental and social requirements of any co-financiers.

(c) Project Description

- Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.

- Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS 1 through 10.

- Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

(d) Baseline Data

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.

- Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.

- Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, demographic, and socioeconomic conditions, including any changes anticipated before the project commences.

[21] This analysis will also include labor, health, and safety laws.

- Takes into account current and proposed development activities within the project area but not directly connected to the project.

(e) Environmental and Social Risks and Impacts

- Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2 – 8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

(f) Mitigation Measures

- Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts.

- Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.

- Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the proposed mitigation measures.

- Specifies issues that do not require further attention, providing the basis for this determination.

(g) Analysis of Alternatives

- Systematically compares feasible alternatives to the proposed project site, technology, design, and operation -including the "without project" situation- in terms of their potential environmental and social impacts.

- Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures.

- For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

(h) Design Measures

- Sets out the basis for selecting the particular project design proposed and specifies the applicable EHSGs or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

(i) Environmental and Social Management Plan (ESMP) (see Annex 2B)

(j) Appendices

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment.

- References-setting out the written materials both published and unpublished, that have been used.

- Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.

- Tables presenting the relevant data referred to or summarized in the main text.

- List of associated reports or plans.

Annex 2B. Indicative Environmental and Social Management Plan (ESMP) Outline

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures. The Borrower will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

ESMPs will be prepared as a stand-alone document. The content of the ESMP will include the following:

(a) Mitigation

- The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

    (i) identifies and summarizes all anticipated adverse environmental and social impacts (including those involving land acquisition, involuntary resettlement workers and community health and safety, vulnerable groups and cultural heritage or);

    (ii) describes -with technical details- each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;

    (iii) estimates any potential environmental and social impacts of these measures; and

    (iv) takes into account, and is consistent with, other mitigation plans required for the project (e.g. for involuntary resettlement, labor, stakeholder engagement or cultural heritage).

(b) Monitoring

- The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

(c) Capacity development and training

- To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.

- Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g. for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).

- To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

(d) Implementation schedule and cost estimates

- For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

ANNEX-2C Recommended Management Plans for Construction and Operation Phases of the Project[22]

Management Plans	Stage to be Prepared	Responsible Party	Approving Party
Construction Phase			
A Soil Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
An Air Quality Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Noise Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Water Resources Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Waste Management Plan that is in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
An Asbestos Management Plan that is in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Traffic Management Plan in line with the ESS1, ESS4, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Labor Management Plan in line with the ESS1, ESS2, WBG EHS Guidelines (both general and sector specific) and ILBANK's Labor Management Plan	Prior to construction	Construction Contractor	ILBANK
An Occupational Health and Safety Management Plan in line with the ESS1, ESS2, WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Community Health and Safety Management Plan in line with the ESS1, ESS4, and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
A Contractor-level Labour Management Procedures in line with the Project-Level LMP and ESS2	Prior to construction	Construction Contractor	ILBANK
A Contractor and Subcontractor Management Plan in line with the ESS1, ESS2, WBG EHS Guidelines (both general and sector specific)	Prior to construction	Municipality	ILBANK
An Emergency Preparedness and Response Plan in line with WGB ESS's and WBG EHS Guidelines (both general and sector specific)	Prior to construction	Construction Contractor	ILBANK
Operation Phase			
An Air Quality Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
A Sludge Management Plan line with the ESS1, ESS3 and WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
A Waste Management Plan in line with the ESS1, ESS3 and WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
A Water Resources Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
A Maintenance Management Plan in line with the ESS1, ESS3, and WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
An Occupational Health and Safety Management Plan in line with the ESS1, ESS2, WBG EHS Guidelines (both general and sector specific)	Prior to operation	Municipality	ILBANK
A Labor Management Plan in line with the ESS1, ESS2, WBG EHS Guidelines (both general and sector specific), and ILBANK's Labor Management Plan	Prior to operation	Municipality	ILBANK

[22] the World Bank ESF/Safeguards Interim Note on Covid-19 Considerations in Construction/Civil Works Projects will also be considered during the project implementation.

An Emergency Preparedness and Response Plan in line with WGB ESS's and WBG EHS Guidelines (both general and sector specific).	Prior to operation	Municipality	ILBANK

ANNEX-2D Environmental Monitoring Plan Template for Sub-project

Phase	**What parameter is to be monitored?**	**Where is the parameter to be monitored?**	**How?** *is the parameter to be monitored/ type of monitoring equipment?*	**When?** *is the parameter to be monitored- frequency of measurement or continuous?*	**Monitoring Cost** *What is the cost of equipment or contractor charges to perform monitoring?*	Responsibility	**Supervision observation and comments** *to be filled out during supervision with reference to adequate measuring reports*
Land Preparation							
Construction							
Operation							